DOCUMENT RESUME

ED 470 848 HE 035 514

AUTHOR	Drake, Marta Perez, Ed.
TITLE	Communicator, 2002.
INSTITUTION	Council of Graduate Schools, Washington, DC.
PUB DATE	2002-00-00
NOTE	90p.; Published 10 times per year.
AVAILABLE FROM	Council of Graduate Schools, One Dupont Circle NW, Suite 430, Washington, DC 20036-1173 (annual subscription rate for nonmembers, $30). Tel: 202-223-3791, ext. 101; Web site: http://www.cgsnet.org.
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Communicator; v35 n1-10 Jan/Feb-Dec 2002
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS
DESCRIPTORS	*Academic Deans; Diversity (Faculty); *Diversity (Student); *Employment Patterns; Graduate School Faculty; Graduate Students; *Graduate Study; *Political Influences; Research
IDENTIFIERS	*Council of Graduate Schools

ABSTRACT

"Communicator" is the newsletter of the Council of Graduate Schools (CGS). Each issue contains an article on a featured topic and information about the activities and programs of the CGS. Each issue also contains profiles and notes about CGS personnel and academic appointments at member institutions. Meetings and conferences are announced and described, and job opportunities are announced. The featured articles in the 10 issues of 2002 are: (1) "Sailing to Success in Sunny San Diego: Highlights of the CGS 2001 Annual Meeting" (Robin R. Smith) (Number 1, January-February); (2) "The New Year in American Politics and What It Means for Higher Education" (Terry W. Hartle) (March); (3) "Compliance Issues Facing Graduate Deans and Students in the Post-September 11th Era" (Ronald M. Atlas) (April); (4) "Graduate Education and the Diversity Debate" (Cristina Gonzalez); (May); (5) "Research Ethics Education: Setting the Bar" (Mark S. Frankel) (June); (6) "Lance Pressl Named New Vice President for Federal Relations and Public Affairs at CGS" (July); (7) "Postdoctoral Appointments and Employment Patterns of Science and Engineering Doctoral Recipients Ten-plus Years after PH.D. Completion: Selected Results from the 'Ph.D.s-Ten Years Later' Study" (Maresi Nerad) (August-September); (8) "Report of the PFF Complementarity Meeting" (Daniel Denecke) (October); (9) "Graduate Student Support: How Much Does Money Matter?" (Joan F. Lorden) (November); and (10) "A Practical Approach to Achieving an Inclusive Graduate Community" (Debra W. Stewart) (December). (SLD)

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ED 470 848

Communicator, 2002

Marta Perez Drake, Editor

Communicator
v35 n1-10 Jan/Feb-Dec 2002

Council of Graduate Schools, Washington, DC

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COUNCIL OF GRADUATE SCHOOLS
cgs
Communicator

Volume XXXV, Number 1 January/February 2002

Sailing to Success in Sunny San Diego: Highlights of the CGS 2001 Annual Meeting

by Robin R. Smith, Vice President for Finance and Administration

The CGS 41st Annual Meeting was held December 5-8 at the Sheraton Hotel and Marina in San Diego, California. The meeting featured all the elements of a successful professional conference: stimulating plenaries, timely breakout sessions, high-energy receptions, awards, surprises, and plenty of food! These provided an outstanding opportunity for more than 500 meeting attendees to converge in sunny San Diego and engage in lively discourse and networking, all in the best interests of graduate education.

CGS offered attendees a rich program. Seven pre-meeting workshops engaged nearly 200 participants and addressed program review, legal issues, preparing future faculty, successful graduate school databases, research integrity, setting expectations and resolving conflict, and electronic theses and dissertations. The meeting started off with the traditional Opening Reception and was followed by the 41st Anniversary Dinner Celebration, hosted by Debra Stewart, CGS president, and Orlando Taylor, chair of the CGS Board of Directors.

Six plenary sessions made important contributions to the meeting theme of "Thinking Forward: A Complex Agenda for Graduate Education." In the first plenary, Lee Shulman, President of the Carnegie Foundation for the Advancement of Teaching, engaged attendees with a captivating discussion on teaching and learning and how ideas on creative and critical thinking, value development and commitments relate to ongoing experiences and debates about graduate and professional education. "Do Babies Matter? The Role of Family in the Careers of Academic Men and Women from Graduate School through Retirement" stimulated the audience on crucial social patterns graduate deans need to consider when working with their students. The data presented by Mary Ann Mason, Dean of the Graduate Division at the University of California-Berkeley, were astounding and her presentation was creative and captivating. The next two plenaries examined global perspective on graduate education in two key arenas. First, Earl Lewis, Dean of the Rackham School of Graduate Studies at the University of Michigan, discussed distance education within a global environment. Second, speakers Patricia Gurin, Professor of Psychology and Women Studies at the University of Michigan and George Sanchez, Professor of American Studies at the University of Southern California, discussed the evolving concept of diversity within local and global perspectives.

The fifth plenary, entitled "Professional Masters Degrees: Expanding the Constituency for Masters Education," was presented by Carla Narrett, Dean of the Graduate School at Montclair State University; Michael Teitelbaum, Program Director of the Alfred P. Sloan Foundation; and Les Sims, CGS Dean in Residence and Director of External Grants Programs. The meeting concluded with a provocative plenary session on how the university campus president or chancellor views graduate education and how graduate deans might be most effective in "making the case" for graduate programs and students. John D. Wiley, Chancellor at the University of Wisconsin-Madison, was this plenary session's speaker.

The plenary sessions were well complemented by 25 concurrent sessions on an extensive array of topics ranging from issues affecting master's-focused institutions to diversity programs such as McNair, AGEP, GradPortal, and past Peterson's awards winners, to updates from GRE, the National Doctoral Program Survey, NRC, Reform Initiatives and the joint CGS/UCEA survey, to development workshops such as career preparation for graduate students, working with the media in a post-September 11 environment, fundraising through external advisory boards, promoting interdisciplinary programs and the future of graduate study support from the federal agency perspective. The entire meeting program can be found on the CGS website at www.cgsnet.org/Meetings.

Other highlights of the meeting included two special luncheons--the Annual Awards Luncheon and the Lapidus Luncheon. A highlight of the Awards Ceremony was the announcement by Cristina Gonzalez that the recipient of the CGS/Peterson's Award for Innovation in Promoting an Inclusive Graduate Community was the University of Missouri. Suzanne Ortega, graduate dean, accepted the honor. The CGS/UMI Distinguished Dissertation Award Winners Beverly Schwartzberg (Humanities and Fine Arts) and Robin Knight (Biology and Life Sciences) were presented, with Bill Savage of Proquest/UMI Dissertations Publishing on hand. Brad Stephan Gregory was named the winner of the CGS Arlt Award in the Humanities. Later that evening, Peterson's/Thomson Learning sponsored an elegant reception honoring the latest "Promoting an Inclusive Graduate Community" award recipient, University of Missouri.

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A New Initiative for Master's Institutions

by Leslie B. Sims, CGS Dean in Residence and Director of External Grants Programs and Peter D. Syverson, Vice President for Research and Information Services

CGS has received a grant from the Alfred P. Sloan Foundation to extend the Sloan Professional Science/Math Master's Initiative to master's-focused institutions (for information about the Sloan initiative, see http://www.sciencemasters.com/hom.html). Professional master's degrees are designed to prepare graduates for employment in non-academic areas, rather than preparing them to pursue a research or professional doctorate degree. These degrees are distinguished as ones that: provide unusual depth in a discipline; fuse science with information technology or other interdisciplinary areas; or couple advanced training in a discipline and experience in areas such as business, law, etc. Additionally, professional master's programs provide opportunities to improve communication and presentation skills, work in teams on real-world problems, and experience non-academic workplaces--often as an intern in business or industry.

CGS member institutions that award a significant number of master's degrees in the physical, biological and mathematical sciences, and a much smaller number--if any--of doctorates in these fields, have been invited to apply for a Sloan Professional Master's planning/assessment grant. Approximately 50 institutions will receive awards that will allow them to survey local or regional non-academic workforce needs, and convene discussions of faculty and administrators with leaders of business and government concerning the possible role of professional science/math master's degrees in meeting expressed workforce needs. These institutions also will perform market research and survey students' interests in such degrees. As a result of these surveys and discussions, many institutions may decide to either transform existing degrees or to create new professional science master's degrees.

The final institutional report is expected to be a proposal to develop and implement degrees in one or more areas of science and/or math. The proposal from each institution will include an assessment of its ability and commitment to develop and offer the proposed degrees, and a financing plan that would allow the degrees to be offered at tuition appropriate for the applicant pool and at a cost acceptable to the institution, given its resources and the possible support from potential employers and others.

Proposals to develop and offer professional science master's degrees will be due to CGS early in the fall 2002 semester. CGS will convene a panel of graduate deans, non-academic employers and perhaps others, such as experts in master's education. Up to 30 proposals will be recommended for a Sloan implementation grant of $25,000 to $50,000 to develop and initiate the proposed degree programs. Implementation awards should be announced by the end of the year.

CGS is excited about this new opportunity to serve a significant number of our master's-focused member institutions. In addition, the reports of the planning/assessment grants will be informative. The results should be valuable to the institutions in strengthening their relationships with prospective employers of their graduates, and of benefit to both parties. The outcomes of this pilot project should also be of interest to all CGS institutions. We plan to offer updates on this project as it develops over the coming year. Questions about the program can be addressed to either Les Sims or Peter Syverson at CGS.✧

Thanks

CGS thanks outgoing 2001 Board of Directors members:
Carole Beere, past-chair, **Chris Hannah**, **Joyce Jentoft** and **Carol Lynch**

Appreciation also to outgoing Affiliate Representatives:
Sandra Terrell (CSGS), **Les Sims** (MAGS), **Jonathan Kotler** (WAGS) and **Louis Maheu** (CAGS)

And thanks to **Charlena Seymour**, for her work as chair of the Advisory Committee on Minorities in Graduate Education

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Federal Relations Update: International Student Visas

International Student Visas have always been an area of interest for most graduate deans. However, after the events of September 11, the fate of international students on our campuses has become a focus of many in Washington, D.C. Specifically, reports that one of the hijackers entered the U.S. on a student visa, as well as concerns of access to laboratories and potentially dangerous biological substances, have brought foreign students, and the tracking of these students, to the forefront. Several pieces of legislation were introduced during the fall, but the status of international student visas is still unresolved. When Congress reconvenes, visa legislation will undoubtedly be up for discussion and vote. The draft legislation appears to be in reasonable shape except for details regarding operational issues, such as fee collection for Student and Exchange Visitors Information System (SEVIS) and how universities can work with the INS in an effective, unobtrusive way.

The Council of Graduate Schools has been communicating with other educational associations, such as the American Council on Education (ACE) and the Association of International Educators (NAFSA), to ensure that graduate education issues are being considered. Please visit the NAFSA and ACE websites (www.nafsa.org and www.acenet.edu, respectively) to obtain updates. Following is a brief summary of the activity that has occurred since September 2001, specifically surrounding the USA Patriot Act of 2001, Kennedy and Feinstein legislation, Homeland Security Presidential Decision Directive-2, the foreign student tracking system (formerly known as CIPRIS and currently called SEVIS, and the introduction of a new Supplemental Nonimmigrant Visa Application by the Department of State.

USA Patriot Act of 2001

On October 26, 2001, President Bush signed into law an anti-terrorism bill that includes several provisions that alter immigration and visa policies and procedures. The "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act (USA Patriot Act)," was effective immediately. It included provisions that will significantly impact colleges and universities; specifically, institutional offices such as the Registrar, Information Technology, Research, Public Safety, and Foreign Student offices.

The NAFSA website, at www.nafsa.org/content/publicpolicy/nafsaontheissues/usapatriot.htm, has an informative summary of the visa provisions affected by the USA Patriot Act (HR 3162), namely visa integrity and security, foreign student monitoring (SEVIS), machine readable passports, and prevention of consulate shopping. The ACE website, at www.acenet.edu/washington/anti_terror/2001/2001_anti_terror.pdf, includes a memorandum prepared by ACE external counsel, Hogan and Hartson, detailing how the provisions of the USA Patriot Act will affect campuses. For a fact sheet of the USA Patriot Act, visit: www.whitehouse.gov/news/releaes/2001/10/20011029-13.html.

Homeland Security Presidential Decision Directive - 2

Following up on the USA Patriot Act, the President issued a directive creating a Foreign Terrorist Tracking Task Force, on which representatives of the State Department, FBI, INS, Secret Service, Customs Service, and the intelligence community will serve. The Task Force was created to coordinate immigration programs among different agencies to more effectively and efficiently enforce the immigration laws of the country. The Directive also charges specified agencies and individuals, including the Attorney General among others, to end the abuses of international student visas.

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Lewis Becomes Chair of 2002 Board of Directors

The new Chair of the CGS Board of Directors is Earl Lewis, Dean and Vice Provost for Academic Affairs at the Horace H. Rackham School of Graduate Studies at the University of Michigan. He succeeded 2001 Board Chair Orlando Taylor, Dean of the Graduate School of Arts and Sciences at Howard University, at the 41st CGS Annual Meeting in San Diego, California. Lewis has served CGS in a number of different capacities, including Chair of the 1999 CGS/UMI Distinguished Dissertation Award Committee and Chair of the Business and Finance Committee. He began his board service in 1999 and was a member of the 2000 and 2001 Executive Committees.

Earl Lewis was born and raised in the Tidewater area of Virginia and earned his undergraduate degree in history and psychology from Concordia College in Moorhead, Minnesota. He later entered graduate school at the University of Minnesota with a somewhat ambivalent attitude about the value of a Ph.D. "But once I decided that I truly wanted a doctorate, and with a vow to myself to spend no more than ten consecutive winters in Minnesota, I made up my mind to finish as quickly as possible."

His first academic appointment was at the University of California at Berkeley from 1984-89. In 1989, he arrived at the University of Michigan and taught in both the History Department and the Center for African and African American Studies (CAAS). He served as director of CAAS from 1990-93, and was honored with a Faculty Recognition Award in 1991. In September 1997, Lewis was named interim dean until his appointment as dean and vice provost in March 1998.

Dean Lewis has participated in a number of campus and professional studies. He has been a member of several editorial boards, including the *American Historical Review*. He currently sits on two editorial boards and the boards of several professional associations. In addition, he has directed projects funded by the Rockefeller, Ford, Mellon and National Science Foundations. Currently, he is finishing a book of essays on race, identity and history. He recently published a book, *Love on Trial*, with Dr. Heidi Ardizzone, a former graduate student, on a much-publicized case of love, alienated affection, and race from the 1920s. Lewis has served as a consultant on many projects, and has lectured widely.

As Chair, Lewis will serve the CGS board and continue the hard work of so many of his predecessors. He will serve as the 2002 Board Chair until he passes the gavel to Chair-Elect Joan Lorden, at the 2002 Annual Meeting in Washington, D.C. this December. ◆

Don't Forget...

To return your ***Directory Questionnaire!***
Questions? Contact Janice Goggins
at jgoggins@cgs.nche.edu.

Data Sources:

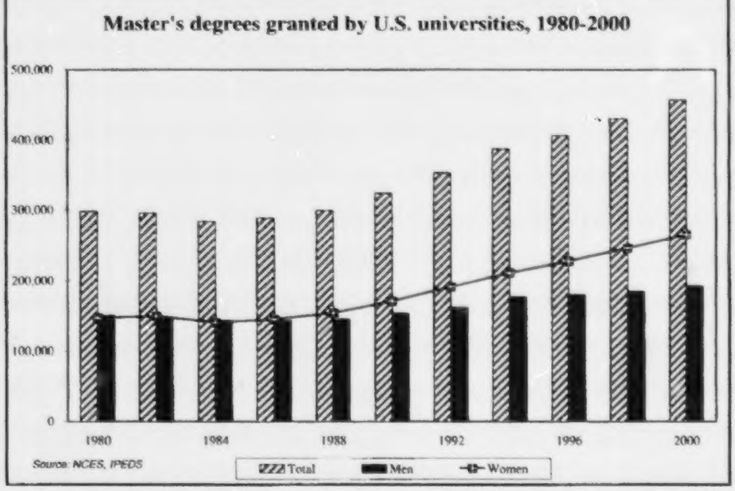
Bullish on Master's Degrees

Numbers Increased Even as Enrollment Experienced a Downturn

by Peter D. Syverson, Vice President for Research and Information Services

Now totaling more than 450,000 degrees annually, the master's degree reflects the size and scope of graduate education in the U.S. It is probably the most diverse of the graduate degrees, with hundreds of degree titles and the highest percentage of women of any post-baccalaureate degree. It is also the single degree that connects all CGS institutions. While not all CGS institutions grant the doctorate, all grant the master's degree. CGS has been an active participant in the national conversation about the master's degree with the Conrad, Millar, and Haworth study, *Silent Success*[1], the CGS publication *Master's Education*[2], and now with the Sloan program on professional science master's degrees at master's-focused institutions, profiled in this issue of the *Communicator*.

Figure 1



Master's degrees granted by U.S. universities, 1980-2000

Source: NCES, IPEDS

The National Center for Education Statistics IPEDS (Institutional Postsecondary Education Data System) survey is the benchmark national source of data on master's degrees, but delays in publishing reports have plagued NCES degree data. However, since putting the IPEDS survey online, NCES has been able to produce far more timely data and accordingly, has just released degree data for academic year 2000 (July 1999- June 2000)[3].

As shown in Figure 1, after a dip in the early 1980s, the number of master's degrees granted has grown markedly, increasing by a total of 61% since 1984, or an annual rate of 3%. This consistent increase occurred in parallel with rising graduate enrollment over the 1986-1994 period. Moreover, this increase in master's degrees continued even as graduate enrollment plateaued and decreased slightly from 1995 to 1999.

One of the principal forces driving the increase in master's degrees is the swift increase in the number of women participating in graduate education. In the early 1980s, the percentage of men and women earning master's degrees was about equal, but in 1986 the trend lines crossed, and women have been the majority of master's-degree recipients ever since. In fact, women now account for 58% of all master's degrees granted. Over the last 20 years, women earning master's degrees have increased at double the rate of men, rising by an annual rate of 4%, while the number of men earning master's degrees has grown by 2% each year. In 2000, women were the majority in six of the nine fields in Table 1.

Two fields--education and business--dominate master's education. Together these two fields account for about one-half of all master's degrees granted (see Table 1). Over the last decade, these two fields have grown at a 4% annual rate, each granting over 35,000 more degrees in 2000 than 1990. The third largest field, health sciences, is also the fastest growing, more than doubling in the number of master's degrees granted over the last 10 years. Public administration and the biological sciences were the other fields with above-average rates of growth. Engineering was the slowest-growing field during this period, increasing by just 1% per year in master's degrees granted since 1990.

Along with the increase in the number of women earning master's degrees, the number of U.S. minority-group members earning master's degrees grew rapidly during the last decade, increasing well above the 3% annual average (see Table 2). The number of master's degrees earned by all four groups more than doubled from 1990 to 2000, with Hispanic Americans posting the most rapid growth. The largest numeric increase was among African Americans, who increased by more than 20,000 in the number of master's degrees earned annually since 1990. From 1990 to 2000, the share of degrees earned by minorities grew from 11 to 18 percent, another indication of the increased participation of minority-group members in graduate education.

Discussion

In both statistical and programmatic terms, the future appears positive for the master's degree. The data presented here indicate that trends in master's degrees have momentum, that the numbers of master's degrees granted continued to increase--though at a slower rate--even as graduate enrollment was turning down. NCES forecasts that the number of master's degrees granted will increase by about 1% per year over the next decade. Moreover, master's students reflect the increasing diversity of American society, with women constituting 58% of master's degree recipients and 18% of new master's degrees earned by minority-group members.

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Table 1

Master's degrees granted by field, 1990-2000

	1990	1992	1994	1996	1998	2000	Percent Change 1990-2000	Average Annual Percent Change 1990-2000
Total	324,301	352,838	387,070	406,301	430,164	457,056	41%	3%
Biological Sciences	8,833	9,931	10,989	12,541	12,823	13,051	48%	4%
Business	76,959	84,981	93,959	94,481	102,799	112,256	46%	4%
Education	84,893	93,025	99,407	106,758	115,260	124,240	46%	4%
Engineering	24,876	26,004	29,840	28,641	27,178	26,510	7%	1%
Health Sciences	20,431	23,213	28,314	33,659	39,543	42,456	108%	8%
Humanities	21,118	23,302	24,967	25,417	26,005	25,513	21%	2%
Physical Sciences	19,264	18,936	20,226	20,071	20,305	22,499	17%	2%
Public Administration	17,396	19,430	21,998	24,357	25,268	25,594	47%	4%
Social Sciences	23,560	24,399	28,504	30,603	30,483	30,122	28%	2%
Other Fields	26,971	29,617	28,866	29,773	30,500	34,815	29%	3%

Source: NCES, IPEDS

Lorden is Chair-Elect of 2002 CGS Board

Joan F. Lorden, Associate Provost for Research and Dean of the Graduate School, University of Alabama at Birmingham, was named chair-elect of the Board of Directors in July. Lorden has served on the Council of Graduate Schools board since 1999 and was chair of the Business and Finance Committee. She also is involved in the Conference of Southern Graduate Schools (CSGS) where she was Vice President in 2000 and President in 2001.

Lorden has served the University of Alabama at Birmingham (UAB) since 1976. A professor for many years, Lorden later was the Director of the Behavioral Neuroscience Program (1980-94); Senior Scientist of the UAB Neurobiology Research Center (1987-97), Co-Director of Undergraduate Studies for the Department of Psychology (1990-94), Chair of the Committee on Graduate Study in Neuroscience (1988-92), and UAB Faculty Representative for the Board of Trustees of the University of Alabama (1993-94). Lorden has been Dean of the Graduate School at UAB since 1994 and Associate Provost for Research since 1995.

Dean Lorden's service on review boards and advisory boards is extensive--including the NIH National Reviewer Reserve since 1995, a member of the Advisory Panel for the Biological Basis of Behavior Program at NSF (1986-89), UAB Research Foundation Board of Directors and the Mississippi-Alabama Sea Grant Board of Directors since 1995, and the Alabama Space Grant Policy Advisory Board and Alabama Space Science and Technology Alliance Board since 1996. Lorden is a member of several professional societies and has been involved in many Department of Education, NIH, NSF and other prestigious grants. She holds degrees from The City College of New York and Yale University, and is the author of many publications.

When asked about her involvement with CGS in this new capacity, Lorden said, "I am delighted to be a part of the CGS Board at this time. Graduate education is a vibrant and evolving enterprise. One need only look at the growth in master's education, the experiments being undertaken in the area of professional master's, and the national initiatives to ensure the vitality and continued success of doctoral education to get a sense of excitement about the future of graduate education. CGS has been a force to promote quality and diversity in graduate education and is well-positioned to do so in the future. One of the challenges for CGS is to increase the visibility and understanding of graduate education at the federal and state levels. Graduate education in the U.S. is a great success story, but one that is poorly understood by the public. The board is committed to assisting the CGS leadership in addressing this as well as supporting CGS's many new initiatives."

As Chair-Elect, Lorden will serve the CGS board and continue the hard work of so many of her predecessors. In December, she will succeed 2002 Board Chair Earl Lewis, Dean of the Rackham School of Graduate Studies at the University of Michigan, at the 2002 Annual Meeting in Washington, D.C. ◆

CGS Welcomes New Board Members

Carol Diminnie,
Graduate Dean at Angelo State University

Susan Huntington,
Vice Provost, Graduate Studies and Dean,
Graduate School at The Ohio State University

Christine Maziar,
Vice President, Research and Dean, Graduate
School at the University of Minnesota

Catherine Stimpson,
Dean, Graduate School of Arts and Sciences
at New York University

We value your service in 2002!

Thomas J. Linney Departs CGS

Thomas J. Linney, Vice President for Federal Relations, left the Council of Graduate Schools at the end of November 2001. During his years at CGS, Linney shared many warm and satisfying personal and professional relationships in the graduate education community. His "Legislative Update" was a regular feature in the *Communicator*. Please join CGS in wishing him every success in his future endeavors.

CGS continues its deep commitment to providing a strong voice in the federal graduate education policy arena on behalf of our members. Currently we are evaluating how we may optimize our impact on federal relations and public affairs. During this interim period, CGS's president, Debra W. Stewart, will serve as the initial contact for questions and issues on federal relations and public policy. The CGS staff also will work closely with Stewart to respond to you. Comments or suggestions are always welcome. If you have specific feedback for the CGS federal relations area, please e-mail fedrelations@cgs.nche.edu. ◆

CGS Congratulates Recent Award Winners:

2001 Gustave O. Arlt Award in the Humanities
Brad Stephan Gregory

2001 CGS/UMI Distinguished Dissertation Award Winners
Beverly J. Schwartzberg (Humanities and Fine Arts)
Robin Douglas Knight (Biology and Life Sciences)

2001 CGS/Peterson's Award for Innovation in Promoting an Inclusive Graduate Community Winner
University of Missouri-Columbia
Directors of Graduate Studies Leadership Development Program
Suzanne Ortega, Dean of the Graduate School

Data Sources

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One of the questions that has arisen with the emergence of the graduate certificate is whether these new short-term graduate programs would siphon off students who may have enrolled in mater's programs. Results of the recently completed CGS/UCEA certificate survey indicate that most institutions have found that the advent of graduate certificate programs does not detract from master's-program enrollment.

At the program level, the master's degree continues to be at the center of innovation in American graduate education. The Sloan professional science master's initiative is one example of new thinking being applied to the master's degree. In the Sloan initiative, master's programs are designed to prepare students directly for professional-level careers in business and government rather that serving as a waypoint to the Ph.D. These "science MBA" programs are developed in close cooperation with the local business community and often include a series of business courses along with the science curriculum.

As Conrad, Millar, and Haworth concluded, "master's education in the United States has been a silent success--for degree holders, employers, and society in general." Of all the post-baccalaureate degrees, the master's degree may be the most dynamic, able to nimbly respond to changes in student and employer demand. The end of the job market boom means that new bachelor's-degree recipients and those individuals who opted to go directly to employment in the late 1990s will now be attracted to master's degree programs. A wild card is the uncertainty surrounding international student demand for U.S. graduate education. However, since international students tend to focus on the Ph.D., changes in international student enrollment are likely to have less impact on master's programs than on Ph.D. programs. CGS will continue to track the national data on master's degrees to see if these positive indicators lead to a sustained bull market for the U.S. master's degree.

Master's degrees granted by ethnicity, 1990-2000

	2000	Percent Change 1990 to 2000	Average Annual Percent Change 1990 to 2000
Total	457,056	41%	3%
U.S. Citizens and Permanent Residents	401,076	40%	3%
African American (Non-Hispanic)	35,897	132%	9%
American Indian	2,252	105%	7%
Asian	23,145	119%	8%
Hispanic	19,235	142%	9%
White	320,547	27%	2%
Non-resident Alien	55,980	57%	5%

Note: In order to compare the 1990 NCES data with 2000, the reported racial/ethnic distribution of master's-degree recipients was used to estimate race/ethnicity for those in 2000 whose race/ethnicity was unknown.

Table 2

Source: NCES, IPEDS

Notes

[1] Conrad, Clifton F., Jennifer Grant Haworth, and Susan Bolyard Millar, *A Silent Success: Master's Education in the United States*, Johns Hopkins University Press, 1993.

[2] Council of Graduate Schools, *Master's Education: A Guide for Faculty and Administrators*, 1994.

[3] U.S. Department of Education, National Center for Education Statistics, Postsecondary Institutions in the United States: Fall 2000 and Degrees and Other Awards Conferred: 1999-2000, NCES 2002-156. See the NCES web site at nces.ed.gov.

Data Sources Corrections:

In Table 1 of the November 2001 Data Sources, the figure for the U.S. population ages 25-39 in 2000 should have been 59,717,000. The correct percent change from 2000 to 2020 is 7%.

The percent change figures for U.S. and international students are reversed in Table 1 in the December 2001 Data Sources column. The correct figures are: U.S. and permanent residents +1%; Non-U.S. temporary residents +9%.

Corrected versions of these two tables can be obtained by e-mail request to ekoretsky@cgs.nche.edu.

Upcoming Meetings

The **Graduate School Fair at the McNair 2002 National Conference** for McNair Scholars and Undergraduate Researchers will occur on Friday March 15, 2002, from 2:00-5:00 p.m. at the University of Maryland Inn and Conference Center in College Park, Maryland. For registration materials and information, please feel free to contact Dr. Chontrese Doswell, chair of the Conference Graduate Fair Committee, at 301-405-4183or at cdoswell@deans.umd.edu.

(R)Evolution in Graduate Education: Serving and Involving Graduate and Professional Students is a daylong workshop sponsored by the Graduate and Professional Student Services (GAPSS) Knowledge Community of NASPA (National Association of Student Personnel Administrators), an association of student affairs administrators in higher education. The workshop will be held Sunday March 3, 2002, at Dudley House, the Graduate Student Center of Harvard University in Cambridge, Massachusetts. For more information on the workshop, contact Lisa Brandes at Yale University, 203- 432-8895 and/or lisa.brandes@yale.edu or visit www.naspa.org/communities/kc/index.cfm.

The Fifth International Symposium on Electronic Theses and Dissertations (ETD), *Pioneering on the Electronic Frontier: e-theses and Intellectual Solidarity*, will be held on May 30, 31, and June 1, 2002, at Brigham Young University in Provo, Utah. For the most current symposium information, visit the CGS website at www.cgsnet.org. For more information, call Conferences and Workshops at 801-378-2568. Proposal submissions are being accepted and can be sent to: Gail McMillan, Program Coordinator, ETD 2002 at gailmac@vt.edu.

The National Association of Graduate Admissions Professionals (NAGAP) will hold its 15th Annual Conference on April 24-27 at the Hyatt Regency Islandia in San Diego. Further information is available at www.nagap.org.

The **Postdoc Network**, a division of Science's Next Wave, will hold its second National Postdoc Network meeting, *Implementation 2002: Opportunities for Collaboration*, on April 20, 2002, in Washington, DC. The meeting itinerary and registration information is posted at nextwave.sciencemag.org/cgi/content/full/2002/01/17/1.

New Deans and Titles

Heinz Bulmahn is Interim Vice Provost for Research and Graduate Dean at Bowling Green State University's Graduate College. Steven Ballard was the former dean. Heinz Bulmahn was formerly with the University of Toledo.

Janice Chavez is Interim Dean, Graduate Studies and Research at California State University, Bakersfield. David H. Ost, the former dean, has retired.

Tony Filipovitch, Dean of Graduate Studies & Research at Minnesota State University, Mankato, has decided to return to the faculty in Fall 2002. He served as dean for five years.

Dianne F. Harrison is Associate Vice President for Academic Affairs and Interim Dean, Graduate Studies at Florida State University. She replaces Alan R. Mabe.

Jennifer Keane-Dawes is Director of the Office of Graduate Studies at Norfolk State University. She replaces Ann W. Morris, who has retired.

Steven O. Salley is Associate Dean of the Graduate School at Wayne State University. He replaces Richard L. Lintvedt.

Staff Changes? Please contact Janice Goggins, Membership Coordinator, at the Council of Graduate Schools. Ms. Goggins can be reached at 202-223-3791 or at jgoggins@cgs.nche.edu.

Items of Interest

The American Indian Graduate Center (AIGC) announces the availability of **AIGC graduate fellowships** for 2002-2003 for American Indian students from federally recognized U.S. tribes. The application deadline is June 3, 2002, for funding in the 2002-2003 academic year. For eligibility requirements, application information and review processes, please call 505-881-4584 or visit www.aigc.com.

Washington State University invites applications and nominations from doctoral candidates for the **Summer Doctoral Program**, which provides doctoral students with opportunities to work closely with faculty mentors at WSU. For application information, consult gradweb.gradsch.wsu.edu/SupportOpportunities.html or contact Bonnie Collins at 509-335-6412 or bonnie@wsu.edu. March 15, 2002, is the application deadline.

In December 2001, the National Science Foundation released a data brief entitled, ***Growth Continued in 2000 in Graduate Enrollment in Science and Engineering Fields***. For an electronic copy, visit www.nsf.gov/sbe/srs/.

In November 2001, the ACE Center for Policy Analysis distributed an ***Issue Brief on Student Borrowing in the 1990s***. To obtain a copy of this brief, please contact policy@ace.nche.edu or visit www.acenet.org.

2002 New Deans Institute and Summer Workshop for Graduate Deans

July 13-17, 2002 ◆ Hilton Portland ◆ Portland, Oregon

CGS invites graduate deans, associate and assistant deans, and other faculty and staff from colleges, universities and associations to network with their colleagues in the Pacific Northwest showcase of Portland, Oregon. The CGS Board, staff and other specialists serve as core faculty for the New Deans Institute and Summer Workshop. CGS welcomes you to this unique opportunity to share knowledge and work on issues facing graduate education.

Plenary Sessions are:

◆ Federal Policy for Graduate Education: An Insider's View ◆ Trajectories in Master's Education ◆
◆ Enhancing Diversity Presence: What Works ◆ The Responsive Ph.D.: A Report in Progress ◆
◆ National Security and Graduate Education: Balancing Competing Claims ◆

For more information, visit www.cgsnet.org and look for our mailing in early March.

The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

No endorsement by CGS of any product or service named herein may be implied.

Editor: Marta Pérez Drake, Director of Policy, Programs and Communication

Managing Editor: Robin R. Smith, Vice President, Finance and Administration

Council of Graduate Schools, One Dupont Circle NW, Suite 430
Washington, DC 20036-1173 www.cgsnet.org

"What's Next For ... ?"

CGS congratulates the following retiring deans:

John. L. Eaton, Senior Associate Dean of the Graduate School at Virginia Polytechnic Institute and State University

Dr. James Horner, Director of Academic Affairs at the Air Force Institute of Technology

Ann W. Morris, Director of the Office of Graduate Studies at Norfolk State University

David H. Ost, Dean of Graduate Studies and Research at California State University, Bakersfield

Retiring? Please contact Marta Perez Drake at 202-223-3791 or at mdrake@cgs.nche.edu.

2001 CGS Annual Meeting

(continued from page 1)

Exhibitors for the meeting were ApplyYourself, Inc., Cambridge Examinations and IELTS International, Chickering Group/Garnett-Powers and Associates, CollegeNET, Educational Testing Service, Gradschools.com, NORC-University of Chicago, Peterson's/Thomson Learning, Science's Next Wave, TIAA/CREF and Proquest/UMI Dissertations Publishing. Several exhibitors added a personal touch to the meeting. TIAA/CREF provided one-on-one counseling sessions during the meeting, and Gradschools.com set up a computer center that enabled deans to access their e-mail during the conference. Proquest/UMI hosted its ever-popular Friday evening reception and provided folders for all participants.

Refreshment breaks and receptions were well appreciated by the meeting attendees. Sponsors for the breaks were Claremont Graduate University, Cambridge Examinations and IELTS International, Calisfornia State University-Stanislaus, ETS/GRE, University of California-San Diego, and San Diego State University. University of Nevada-Las Vegas contributed to the success of the Assistant and Associate Deans Continental Breakfast. CollegeNET and National University sponsored the Opening Reception and Dinner, and Arizona State University and University of California-Davis Office of Graduate Studies sponsored the LaPidus Luncheon.

Touring was a popular activity on the meeting agenda. Participants enjoyed four optional events: an EcoTour of San Diego's scenic coastline including stops at Torrey Pines State Beach and La Jolla cove; a day of art and theatre at the Globe Theatre in Balboa Park, a "Get to the Gaslamp" shuttle, and a cruise of San Diego Bay on the *Adventure Hornblower*.

At the Saturday morning business meeting, Debra Stewart addressed the challenges ahead in graduate education. In the spirit of time-honored tradition, Orlando Taylor passed the gavel and introduced Earl Lewis as Chair of the Board of Directors for the coming year (see page 3). Special thanks go to Taylor for his work as 2001 Board Chair and his service to the CGS community. Joan Lorden will serve as Chair-Elect of the 2002 Board of Directors (see page 5).

Looking ahead, it is not too early to plan for the 2002 Annual Meeting. The 42nd Annual Meeting will be held in Washington D.C., from December 4-7, 2002, at the J.W. Marriott. ❖

CGS Thanks the Following 41st Annual Meeting Sponsors

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2001 Annual Meeting Program on the Web

Visit www.cgsnet.org and click on "Meetings" to get the CGS 2001 Annual Meeting Program

Mark Your Calendars!!!

CGS 42nd Annual Meeting
December 4-7, 2002
J.W. Marriott
Washington, D.C.

CGS 43rd Annual Meeting
December 3-6, 2003
Westin St. Francis
San Francisco, California

CGS 44th Annual Meeting
December 8-11, 2004
Marriott Wardman Park
Washington, D.C.

Regional Affiliate Meetings

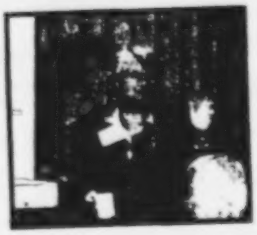
Conference of Southern Graduate Schools
February 23 - 25, 2002, in Baton Rouge, Louisiana

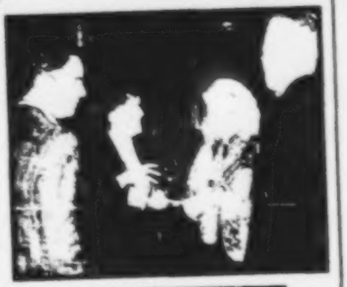
Western Association of Graduate Schools
February 28 - March 3, 2002, in Seattle, Washington

Midwestern Association of Graduate Schools
April 2 - 5, 2002, in Chicago, Illinois

Northeastern Association of Graduate Schools
April 25 - 27, 2002, in Port Jefferson, Long Island, New York

2001 CGS 41st Annual Meeting...





in pictures!!

Student Visa Update

continued from page 3

develop complementary immigration policies among Canada and Mexico, determine the level of appropriate budgetary support for this issue, and further develop and implement advanced technological capabilities for data sharing and tracking.

Although the Administration recognizes the importance of international students to university communities and the nation, the Presidential Directive charges the Task Force and Attorney General to consider tighter control mechanisms on visa applications, including a potential limitation on duration of student immigration status and implementing strict criteria for student visa renewal. At this time, the Office of Science and Technology Policy (OSTP) is working with colleges and universities to properly advise government officials on this matter. It is unclear what final recommendations OSTP will make. Visit www.whitehouse.gov/news/releases/2001/10/print/20011030-2.html, the White House website, for more information.

Student and Exchange Visitors Information System (SEVIS) and Senate/House Legislation

Senate Legislation - Kennedy/Feinstein bill. On November 1, 2001, two bills--the Kennedy/Brownback bill (S.1618) and the Feinstein/Kyl bill (S.1627)--were introduced. Feinstein/Kyl introduced provisions that would bar entry of foreign students from terrorist-sponsoring countries and would reform the foreign student visa process. Kennedy/Brownback attempted to take a more balanced approach to immigration security matters and to recognize the value of foreign students in the U.S within a foreign student monitoring system. On November 30, 2001, a compromise between the Kennedy/Brownback and Feinstein/Kyl bills on the issue of border security was presented. In a December 3 press release, NAFSA states that "the compromise bill introduces responsible controls while avoiding unnecessary and extreme provisions that could severely damage international education and exchange in the United States....The compromise bill (S. 1749) amends the law that requires the creation of a nationwide tracking system known as the Student and Exchange Visitors Program (SEVIS)."[1]

House Legislation - Sensenbrenner bill. Unexpectedly, at the end of last year, the House approved H.R. 3525, the Enhanced Border Security and Visa Entry Reform Act of 2001. This bill, sponsored by Rep. Sensenbrenner (R-WI), was expected to languish in the committee stage until next year, but was brought up in the House under special rules and approved by a voice vote. The bill, which is considered companion legislation to S. 1749 sponsored by Senators Kennedy (D-MA) and Feinstein (D-CA), appears to be only slightly different from the compromise legislation in the Senate. At this time, it is not clear when the Senate will consider its student visas legislation or how the House and Senate will resolve any differences in their bills. According to several Senate staff, the Senate will likely plan to pass the Senate version early this year (depending on how tight the floor schedule is) and then conference the two bills.

Outstanding Issues. An outstanding issue that still needs attention, but will not be handled legislatively, is the SEVIS fee or the collection mechanism. Currently there is a $95, non-refundable fee per student to fund the monitoring system. The fee amount may be, in and of itself, a financial hardship for potential international students, but in addition, the collection of this fee poses a huge problem. Specifically, "students who do not have internet access and credit card--or a U.S. bank drop and reliable mail delivery--would be unable to complete the process in time to apply for a visa and make it to their academic program in time."[2] NAFSA, ACE and others continue to advocate for an ongoing appropriation of SEVIS. Visit www.nafsa.org/content/PublicPolicy/FortheMedia/compbill.htm for details on the bill's new provisions. NAFSA also has a concept paper on "Abuse of International Student Status" at www.nafsa.org/content/publicpolicy/nafsaontheissues/PDD2conceptpaper.pdf, which addresses SEVIS, as well as student visa abuses, problematic visa applicants, control mechanisms and education/training in sensitive areas. Testimony from ACE president David Ward regarding SEVIS is also available online at www.acenet.edu/news/press_release/2001/10october/ward.sevis.testimony.html

New Supplemental Nonimmigrant Visa Application by the Department of State

In January 2002, the State Department introduced a new form, DS-157, to be effective immediately, for all male nonimmigrant applicants ages 16-45. The use of DS-157 was created in response to the September 11 attacks and intends to elicit information that may lead to a security advisory opinion (SAO). This form is mandatory for applicants in the category noted above, regardless of nationality and site of application. However, posts, at their discretion, may require any applicant to complete this form. Form DS-157 must be submitted in conjunction with DS-156, the usual nonimmigrant visa application. This new supplemental visa application form will be available soon on the Department's website at www.state.gov. For more information about the form, visit the NAFSA website at www.nafsa.org/content/PublicPolicy/NAFSAontheIssues/DS-157.htm.

Other Helpful Resources

"Separating Myth from Fact," a NAFSA press release that addresses questions about visas, monitoring, and SEVIS, is very informative and provides helpful responses to those commonly held misconceptions about international students; visit www.nafsa.org/content/PublicPolicy/FortheMedia/facts.htm. In addition, NAFSA published a practice advisory on the "Release of International Student Information to Government Officials; visit www.nafsa.org//content/ProfessionalandEducationalResources/ImmigrationAdvisingResources/PA2001D.htm. Finally, ACE has available the testimony of its president, David Ward, before the Committee on Education and the Workforce - U.S. House of Representatives. Ward's testimony, "Tracking International Students in Higher Education - Policy Options and Implications for Students," may be obtained at www.acenet.edu/washington/anti_terror/2001/2001_oct_ward_testimony.pdf.

Conclusion

There is much at stake for graduate education in the current public policy discussions around international student visas. CGS will continue to closely monitor these issues and welcomes your comments, questions and feedback. ✧

Notes

[1] *NAFSA Update: Kennedy, Feinstein Introduce Compromise Bill on Border Security.* December 3, 2001. Visit www.nafsa.org/content/PublicPolicy/FortheMedia/compbill.htm.

[2] *NAFSA: Separating Myth from Fact: Important Information about Foreign Student Visas, Monitoring, and CIPRIS/SEVIS.* Released October 29, 2001 (revised October 30, 2001). Visit www.nafsa.org/content/PublicPolicy/FortheMedia/facts.htm.

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Issue Date	*Closing Date*
March 2002	Friday, February 15, 2002
April 2002	Friday, March 15, 2002
May 2002	Monday, April 15, 2002
June 2002	Wednesday, May 15, 2002
July 2002	Friday, June 14, 2002
August/September 2002	Thursday, August 15, 2002
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November 2002	Tuesday, October 15, 2002
December 2002	Friday, November 15, 2002

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Vice Provost for Research and Dean of the Graduate School

Northern Illinois University invites applications and nominations for Vice Provost for Research and Dean of the Graduate School. The Vice Provost for Research and Dean of the Graduate School is a key member of the university's senior leadership, reporting directly to the Executive Vice President and Provost. The successful candidate will vigorously promote faculty research and creative activity, will have major influence in determining the research direction of the university, and be responsible for continued growth of sponsored research. **University:** Chartered in 1895, Northern Illinois University (NIU) is a Doctoral/Research University-Extensive institution with a diverse and international student body of over 23,000, located in one of the most dynamic regions of the country. Information about NIU is available at www.niu.edu. **Qualifications:** A terminal degree and professional record warranting a tenured professorship in one of the University's academic departments; relevant leadership and administrative experience in a university setting; a clear view of the roles of graduate, professional, and undergraduate education, of research and artistry, and of service in a comprehensive university; demonstrated success with externally-funded grants and/or contracts; familiarity with intellectual-property and technology-transfer issues facing universities; excellent organizational, interpersonal, and advocacy skills, including written and oral communication with internal and external groups; commitment to high standards of quality, integrity, ethics, and fairness in instruction, scholarship, and service; commitment to promoting cultural diversity; commitment to assessment and improvements of graduate programming; and commitment to fostering interdisciplinary activities and partnerships. **Send:** Letter of application, addressing their relevant experience, expertise, and vision regarding research, artistry, and graduate studies; a current curriculum vitae; and the names, addresses, and telephone numbers of three to five professional references to: Dr. James Erman, Department of Chemistry and Biochemistry, Chair, Vice Provost/Dean Search Committee, Northern Illinois University, DeKalb, IL 60115. **Deadline:** Preference will be given to completed applications received by March 1, 2002; however, applications will be accepted until the position is filled. AA/EEO Institution.

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GRADUATE SCHOOL DEAN

UNIVERSITY OF WISCONSIN-MADISON

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The University of Wisconsin-Madison, one of the world's outstanding public research universities, invites applications and nominations for the position of dean of the Graduate School. The dean, as the chief research officer and the principal advisor to the chancellor and the provost on research, is responsible for the instructional and research environment of over 8,700 graduate students in 185 fields at the master's level, 109 fields at the doctoral level, and 6 capstone certificates. The dean administers the Graduate School's $130 million budget and oversees a wide array of research programs with a total annual budget of more than $500 million. The dean supervises the directors of 18 research centers, the Office of Research and Sponsored Programs, University-Industry Relations, accounting and personnel services, and graduate student academic services programs including admissions, minority programs, financial aid, and degree certification. The dean oversees a support staff of 106.

Please see the following web sites for information about UW-Madison and the Graduate School:

http://www.wisc.edu/grad/ http://chronicle.com/jobs/profiles/3964.htm

Candidates will be evaluated on the following professional and personal characteristics: commitment to maintain and extend the scholarly values, academic breadth, and the diverse missions of a public research university; outstanding leadership qualities including a record of successful leadership in higher education; collaborative leadership style; commitment to shared governance with faculty, staff and students; desire and ability to advance graduate teaching, public service and research; commitment to advocate and pursue funding from public and private sources; ability to work with external constituencies including state and federal government and community; ability to provide leadership in developing policies regarding intellectual property and technology transfer; commitment to the effective use of new technologies; demonstrated commitment to the diversity of students, faculty and staff, to equal employment opportunity, affirmative action and non-discriminatory practices, and to advancing an inclusive climate that stimulates diversity; a commitment to public service through dissemination of research results, promoting the state's economic development, and supporting the Wisconsin Idea. Candidates must possess a record of academic scholarship and teaching that qualifies them for tenure at the level of full professor at UW-Madison.

Applications and nominations must be received by 4 March 2002 to ensure consideration. Later applications and nominations may also be considered. The committee particularly encourages applications and nominations of women and persons of underrepresented groups. Applicants should include a current resume or curriculum vita and a comprehensive cover letter that addresses how their strengths and experience match the qualifications for the position, and what they see as challenges and opportunities of the position, as well as the names, addresses, e-mails, and telephone numbers of five references. Candidates will be informed before references are contacted. Please note that in accordance with Wisconsin statutes the names of nominees and applicants who explicitly request confidentiality will not be made public. However, the university is required to release the names and titles of the finalists who will be interviewed by the chancellor. Submit applications and nominations to:

Professor Jo Handelsman, Chair
Graduate School Dean Search and Screen Committee
133 Bascom Hall, 500 Lincoln Drive
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DEAN OF GRADUATE STUDIES
The University of New Mexico

The University of New Mexico (UNM) seeks an innovative and dynamic leader for its next Dean of Graduate Studies. Located in Albuquerque, the largest city in New Mexico and one of the fastest growing in the Southwest, UNM is a Carnegie Doctoral / Research - Extensive University and a DoEd Minority public university. UNM is the largest university in the state, offering 92 baccalaureates, 65 masters, and 36 doctoral level degree programs, and serves a diverse student population with more than 30,000 students on five campuses. UNM offers nationally ranked academic programs, exceptional research opportunities, and supports a vibrant fine arts program on an architecturally unique campus. The Dean of Graduate Studies reports to the Provost/Vice President for Academic Affairs and is a member of the Council of Deans.

Duties and Responsibilities

- Works closely with graduate faculty, Faculty Senate committees, academic deans, provost's staff, and upper administration to provide high quality graduate education
- Works with our graduate programs to increase dramatically the effectiveness of our graduate student recruitment
- Works with the research office and graduate programs to enhance graduate student funding through training grants, fellowships, development, and other means to enhance research productivity through good use of graduate students, effective recruitment, and other measures
- Promotes and enhances research and job opportunities for graduate students, including those looking for careers in the professorate by establishing a successful Preparing Future Faculty program
- Leads the UNM community as a spokesperson on national issues in graduate education
- Develops and fosters strong relations and partnerships with other institutions that provide students and faculty access to special facilities, research collections, and other resources
- Establishes systematic efforts to raise the national visibility and stature of our programs, thereby increasing attractiveness of these programs to funding agencies, potential students, and potential faculty
- Provides dynamic supervision and management for the Office of Graduate Studies by overseeing the operation of the office and its programs, including monitoring graduate student progress, administering and monitoring policies and regulations, reviewing theses and dissertations, mediating and resolving conflicts in policies, and providing positive assistance to graduate students throughout their programs
- Develops and presents specific short-term and long-term plans, program goals, and recruiting strategies annually to the Provost for approval
- Promotes, enhances, and is committed to an ethnically and culturally diverse community that ensures a tolerant and stimulating educational environment
- Greatly increases the number and quality of intellectual events on campus, including conferences, seminar series, symposia, and other events that bring the best people in the world to UNM to interact with our faculty and students

Minimum Qualifications

- Appropriate terminal degree
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- Evidence of outstanding leadership ability and a minimum of five years of graduate education experience

Desired Qualifications

- Three years of management and administrative experience at the level of department chair or head, associate dean, graduate programs director, center/research director, or the equivalent
- Critical understanding of current issues and developments in graduate education
- Experience with long-term comprehensive planning
- Experience in fiscal management, human resources planning and management, and performance and outcomes assessment
- A record of successful fund-raising and grant awards
- A record of commitment to equal opportunity and the recruitment, retention, and professional development of a culturally diverse faculty and staff

The University of New Mexico actively seeks and encourages nominations of and applications from individuals who are members of under-represented groups. For information regarding the confidentiality of inquiries and applications call or write to the address listed below. A complete application consists of (1) a signed letter that expresses interest in and describes qualifications for the position, (2) curriculum vitae, and (3) the names and contact information of five professional references. For best consideration, applications should be received by January 18, 2002. However, applications will be accepted until the position is filled.

Nominations and applications should be submitted to:

Dean of Graduate Studies Search
Attn.: Daniel Lamb
Scholes Hall 226
University of New Mexico
Albuquerque, NM 87131
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Volume XXXV, Number 2 March 2002

The New Year in American Politics and What It Means for Higher Education

by Terry W. Hartle, Senior Vice President, Division of Government and Public Affairs at the American Council on Education

Terry Hartle served as the 2001 Lapidus Luncheon speaker at the CGS 41st Annual Meeting in San Diego, California. Following is the talk he presented.

Historians rarely think that the start of a new era coincides with the beginning of a new century. Just look at the 20th century--according to Eric Hobsbawm, it was a "short century" that started in 1914 and ended in 1989. Paul Johnson begins Modern Times, his history of the 20th century with the words "the modern world began on 29 May 1919 when photographs of a solar eclipse, taken on the island of Principe off West Africa and at Sorbal in Brazil, confirmed the truth" of Albert Einstein's Special Theory of Relativity. At the dawn of the last century, however, most observers believed that a different event marked the start of the modern era--the death of Queen Victoria in 1901.

In our own lives, there was much celebration and noisemaking at the start of the new millennium, and with good reason. Washington Post reporter Haynes Johnson noted that Americans thought--with justification--that "Not since the Roman Empire had another society occupied so dominant a world position as they did at century's end." He continues:

> Americans enjoyed unprecedented peace and prosperity. Their creation of wealth was unsurpassed, and it was a new wealth shared by more members of society than ever before.... In science, in technology, in medicine, in military power, Americans had no equals. As the clock ticked away on the 20th century, their dominance became stronger. Nor did their advantages end there. After the global terrors and tragedies into which they had been drawn throughout the century, by the closing years of that epoch they faced no crises domestic or foreign. No specter of another Great Depression haunted them. American markets continued to soar, setting record after record.... Even cautious economic observers began suggesting historic up-and-down market forces had been repealed. Now the movement was only up--and up and up. There was no downside.

How distant that view seems from the times in which we are now living. Indeed, in the last year alone, we have seen things that none of us imagined we would ever experience, and many of these landmark events were played out on the national political stage.

Perhaps, with respect to politics, it is more accurate to say that we have been through two remarkable years at once. The first began on Election Day last November and ended the morning of September 11th. During that "year," a new president was inaugurated after a presidential election that ended, essentially, in a tie, and featured recounts and court decisions. The new president pledged a new day of nonpartisan politics. Then he proposed a huge tax cut, which Congress approved by the narrowest, partisan margin. In its wake, control of Senate shifted in the middle of a Congress for the first time in the nation's history.

That year ended, and a new one began--abruptly and horrifically--at 9:00 am on a beautiful September morning. It has become commonplace to say that everything changed on September 11th. While that statement has become a cliché, it also is incontrovertible.

With the new year came new priorities for all of us. National politics is perhaps the most obvious example. Just as political observers thought we were getting a fix on what the Bush Administration wanted and what they would emphasize, the world changed.

Think for a moment about the public policy issues that we talked about before September 11th--a patients bill of rights, campaign finance reform, the faith-based initiative, increasing the minimum wage, and Gary Condit. Most significantly for people in Washington, we talked about how much of the roughly $140 billion estimated federal budget surplus for the coming fiscal year would be spent on meeting domestic priorities.

We have not talked about any of those issues since that morning. Instead we have talked about war, terrorism, immigrants and civil liberties. About the only thing that we talked about in both of these "two years" is the need for an economic stimulus. Congress will soon adjourn for the year. Only a fool would try to predict what Congress and the Executive Branch will do when they reconvene at the end of January.

But whatever they talk about, whatever direction the federal government moves, it will have a huge impact on higher education. It is impossible to imagine the modern American Research University without the federal government. Small private colleges would not exist without federal support.

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American Politics and Higher Education

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Indeed, for America's colleges, the 1990s only deepened and extended our connections with the federal government.

Consider some indicators: Federal Research and Development spending grew from $72 to $99 billion in the past ten years. In NIH, that spending grew by $12 billion. NSF spending jumped by $2 billion. Not all areas did as well. Over the same period, R&D at the Department of Energy fell from $8 to $7 billion; USDA research support was essentially flat at $1.6 billion, and NASA grew from just $8.5 to $9.9. NEA's budget fell from $109 to $105 million in just over seven years (1995 to 2001).

Student financial aid is another indicator of our increasing connection with federal policy. The amount of federal student aid grew from $21.2 billion in 1990 to $50.7 billion in 2000-01, an 83% increase AFTER adjusting for inflation. Much of the increased aid was in the form of student loans. More than 60 percent of all bachelor's degree recipients graduated with some federal student loan debt.

NSF numbers point to the number of fellowships in science, engineering, and health sciences: 30,000 fellowships; 91,000 research assistantships and 66,000 teaching fellowships in 1999.

The percentage of graduate and professional students with debt also grew. Approximately 60% of Masters recipients in 1999-2000 graduated with debt, up from 36% in 1993. Master's students who borrowed had a median debt of $17,341 at public and $24,409 at private institutions. Almost all professional degree recipients (medicine, law, etc.) now graduate with student loan debt--85% borrowed in 2000, up from 74% in 1993. In addition, the amounts they borrow can be staggering. Consider medical students, whose average debt among graduating debtors is $99,000--that's $87,000 from public and $119,000 from private institutions. (This is up from $56,000, $47,000, and $69,000, respectively, in 1992.)

These numbers should remind us, if we harbored any skepticism, that the future of higher education--who comes to it and what we do--depends heavily on the federal government and what it does. This is why we need to pay attention to the priorities of any new Administration, a new Congress and any external events that may reorient priorities and shift this relationship.

So a logical--and vitally important--question for us to ask at this point is how recent events are likely to recast public policy debates and therefore reshape this relationship.

Of course, it is impossible to know at this point. Partly we cannot know because the rapid changes in the creation, storage and transmission of knowledge make it risky to generalize about the university itself more than a couple years in advance.

Any number of internal and external forces are changing higher education institutions dramatically. Consider just one of these forces: demographics. According to the U.S. Department of Education, we can expect an increase in higher education enrollments of 20 % between 2000 and 2010. Historically, by the way, they have always underestimated the extent of the growth. The rapid changes in demography that are sweeping the nation mean that the increased enrollment will come from a different student pool. There will be more minority students, more low-income students, more first-generation students, older students, and more students of multiple ethnic heritages. This is not speculative; this is what will happen. These students will be interested in different subjects, will learn in different ways and want a different relationship with graduate deans than their older brothers and sisters.

But it is even more difficult to speculate about the future of the relationship between higher education and the federal government because the federal government itself is in a period of enormous uncertainty. Simply put, we really do

continued next page

Welcome

CGS welcomes the following new Affiliate Representatives:

Gordon Melson (CSGS) **Mark Brenner** (MAGS)
Moheb Ghali (WAGS) **Alan Weedon** (CAGS)

COUNCIL OF GRADUATE SCHOOLS
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IUPUI

Lawrence Martin (NAGS)
Dean of the Graduate School
SUNY -- Stony Brook

Moheb Ghali (WAGS)
Vice Provost, Research & Graduate Dean
Western Washington University

U.S.Politics and Higher Education--continued from page 2

not know much about the public policy agenda facing the federal government, except that it is likely to be very different than it was a short while ago. One thing that lobbyists seek is stability. We like and need predictability. It is important for the work that we do in representing our clients (that is, administrators in higher education) that we have some sense of where the federal government is going and that we be able to predict with some precision what issues will come on the horizon and when.

But today, we cannot really do that because the policy makers themselves do not really know what they want to do from one week to the next. Consider a recent debate in Washington about international students. Until September 11th, everyone "knew" that international students were a good thing. Indeed, earlier this year, the Senate passed a resolution unanimously calling for the adoption of policies in Washington, D.C. and on college campuses to increase the number of international students enrolled in American institutions.

By mid-September, however, one senior, influential Democratic Senator spoke openly about imposing a moratorium on international students--a proposal that she later withdrew. Other members of Congress promptly picked it up. We will dodge this particular bullet, but this was an issue that we never saw coming. The public policy process is not pretty to watch, but the federal government does not usually go too far wrong when it acts carefully and deliberately. It is when it acts in haste--without considering all sides of an issue, without the chance for comment and compromise--that any industry runs the risk of great harm. In part the danger we face now is of a federal government that takes dives headfirst into new policy issues without understanding all their actions. As hard as it is to get anything done in Washington, it is orders of magnitude harder to undo things that have been approved.

> *In part the danger we now face is of a federal government that takes dives headfirst into new policy issues without understanding all their actions. As hard as it is to get anything done in Washington, it is orders of magnitude harder to undo things that have been approved.*

The reason we cannot get a bead on what specific policy proposals we will be confronting in the future is that the events of September 11th are likely to alter both the basic issues on the public policy agenda and the underlying relationship between the government and American society. In at least three fundamental ways, we are looking at a very different policy environment than before.

It is not simply that the world is a more dangerous place than we thought, and now realizing that there really are people out there who truly hate us: it is more dangerous and there are people who hate us. That is certainly true. Nor is it simply that the federal government for a short while will worry about things--like airport security--that it did not worry about very much before.

Rather, the broad contours of the relationship between the federal government and American society were altered dramatically in ways that we cannot yet understand and probably will not understand except in retrospect. Let me outline three major developments in the relationship between the federal government and American society that we are likely to see as a result of September 11th.

First, the economy is, once again, likely to take center stage to public policy makers. We knew that the economy was slowing all year. However, we now agree that the economy is in much worse shape than it was just 90 days ago. Policymakers are looking for a solution. Since January, the Federal Reserve has cut the discount rate 10 times, taking it from 6% to 1.5%, or 450 basis points. This is unprecedented. The federal prime rate stands at its lowest level in more than 30 years, and still the economy has not yet responded in the way that economists anticipated it would--given such a huge change in fiscal policy.

Now we are talking about another tried and true policy venture--an economic stimulus package. Most observers believe that whatever package we get will be worth roughly $100 billion. A lot of money to be sure, but that is in the context of a $10 trillion economy. How much of a stimulus would your family's economic situation get if you had an extra one percent in your pocket? Probably not very much. To make a difference, policymakers will need to make certain that the new stimulus is targeted very, very carefully.

The implications for the federal government are profound. Remember the federal budget surplus? That $140 billion surplus we were thinking about spending or saving on September 10th? It is gone. We are looking at federal budget deficits again. Moreover, the government must address a downturn in the economy at the same time that it must address urgent new budget priorities: fortifying the homeland and strengthening the social safety net.

As priorities shift, so will be the impact on the universities--more research on defense and energy and maybe less on health. The cost of student aid programs will go up because of higher utilization, making it harder to actually increase grant and loan levels.

A few years ago people said that "budget drives policy" as a way of summarizing the central operating principle of public policy in Washington. This meant that what the federal government could afford to do--more than what it should do--had a disproportionate impact on the issues that policy makers addressed and the solutions they considered. This mantra, this orienting principle will return. It will make it highly unlikely that we will see a new prescription drug benefit in the Medicare program. It would have been tough before; it is simply unaffordable now.

A second hypothesis is that the relationship between the federal government and individuals will change significantly in the years ahead. Initially, the issue will involve matters such as increased airline security. These are important issues but mostly they are an inconvenience. They do not fundamentally alter the relationship between the individual and the state.

But more far-reaching changes are coming. Government now has expanded powers to look at your e-mail. For years, the FBI had a powerful tool to "eavesdrop" on e-mail through a powerful electronic tool called Carnivore, which allows cops to monitor what suspects do on the net--problem is, it also collects data on the innocent and delivers it up to the FBI and other law agencies. However, concerns about privacy kept that program at bay. Carnivore is now up and running. Moreover, the USA Patriot's Act of 2001, allows the government new powers to investigate mail and telephone service. Police agencies now seek help of businesses and other organizations--including colleges--to question people. Long lock-ups of "suspicious" people are permitted: military tribunals--not seen in this county in years--are coming back. In some cases, the federal government will monitor the conversations between lawyers and some federal prisoners.

What these changes mean is unclear. Already, concerned voices have been raised. Critics see them as the broadest attack on civil liberties since World War II. Defenders of the Administration argue that these are "minor, incremental tweaking of technical legal issues," and the public seems to agree--a recent Washington Post poll makes clear that the public is not worried about this at all--59% of those polled favored the expanded powers proposed by the Administration.

Many of these steps will, of course, be challenged in court. However, if precedent is any guide, the courts are likely to give the government wide latitude to protect the country and is likely to assume that it will not misuse them. And, again, if precedent is any guide, government probably will misuse them.

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Data Sources:

Loans, Employer Support are important components of graduate student financial assistance, according to latest NPSAS results

by Peter D. Syverson, Vice President for Research and Information Services

Student support holds the enviable position of being perhaps the most difficult topic on which to collect definitive data and, at the same time, one of the most important topics to the higher education community. The National Postsecondary Student Aid Study (NPSAS) is the product of an intensive federal effort to provide solid data on this complex issue. The NPSAS survey is conducted every four years and collects data from students, institutions and parents on the financing of undergraduate, graduate and first-professional education.[1]

One of the challenges for those interested in graduate student support has been the small size of the sample of graduate students, which has limited the amount of detailed data available from NPSAS. Thanks to the efforts of the NCES survey team, the 1999-2000 survey includes data on approximately 11,000 graduate students, a considerably higher number than the previous survey. This is very good news, as this larger sample will allow us to learn far more about graduate student support than we have for some time.

In addition to this larger sample size, the NPSAS database has a number of unique attributes. For example, the NPSAS allows us to separate master's from doctoral students, and tabulate students by type of degree program, such as MBA, MED, Ph.D. and so forth. In addition, NPSAS collects data not available in other surveys, such as cost of education, dollar amounts received from support sources, and education-related debt incurred as an undergraduate separated from debt incurred as a graduate student.

Percentage of graduate and first-professional students receiving aid and average amount received, by aid type and degree program, 1999-2000

	Percent Receiving Aid	Average Amount Received**
Master's		
Any support	57.9%	$10,391
Institutional aid, any*	22.2%	$7,731
Assistantship	10.5%	$7,481
Employer-provided	24.7%	$3,838
Stafford loan	26.0%	$11,309
Perkins loan	2.1%	$2,627
Doctoral		
Any support	72.4%	$18,466
Institutional aid, any*	58.3%	$16,320
Assistantship	42.7%	$11,676
Employer-provided	10.5%	$3,998
Stafford loan	19.4%	$12,059
Perkins loan	3.0%	$1,952
First-Professional		
Any support	85.4%	$21,505
Institutional aid, any*	37.1%	$7,221
Assistantship	7.1%	$4,981
Employer-provided	4.6%	$4,847
Stafford loan	73.1%	$16,428
Perkins loan	15.4%	$3,081

*Institutional aid includes fellowships, tuition scholarships, and assistantships.

**Average amount received by those receiving aid.

Source: NCES, NPSAS:2000 Graduate and First-Professional Students

Table 1

Displayed in Table 1 is information on support received by master's, doctoral, and first-professional students. In 1999-2000, approximately 60% of graduate and first-professional students received some sort of financial support. That figure is higher than the 52% reported in the 1995-96 edition of NPSAS. Nearly 59% of master's students, 72% of doctoral students, and 85% of first-professional students received support. Overall, full-time students were more likely to receive support with 82% reporting financial support for graduate or first-professional study.

Master's-degree students receiving employer-provided aid, by field of study, 1999-2000

	Employer Aid	Average Amount Received*
Total	**25%**	**$3,838**
Business/management	41%	$4,876
Engineering/computer science/math	31%	$4,710
Health sciences	25%	$3,619
Life and physical sciences	18%	$3,787
Education	17%	$1,683
Social/behavioral sciences	13%	$2,989
Humanities	10%	$1,829

*Average amount received by those receiving aid.

Source: NCES, NPSAS:2000 Graduate and First-Professional Students

Table 2

Importantly, while most graduate and first-professional students receive support, the source of that support varies widely by type of program. Master's students receive support from three sources: loans, employers and their graduate institutions. Doctoral students are primarily supported by institution-based sources (fellowships, assistantships and tuition scholarships) with some support from loans and less from employers. In contrast to graduate students, first-professional students overwhelmingly support their education through loans, with nearly three-quarters participating in the Stafford loan program and 15% receiving Perkins loans. Almost three times as many first-professional students report federal loans than do graduate students. In addition to the federal loans, 15% of first-professional student use private-sector loans, which heightens the loan disparity between graduate and first-professional students.

Also shown in Table 1 are the average dollar amounts received for those who reported support from that source. As expected, the average amount of support increases from master's, to doctoral, to first professional students. The large percentage of doctoral students receiving institutional support is matched by a high dollar value of support, averaging $16,320 in 1999-2000. Here again the high loan levels of first-professional students are evident, with the single-year loan total averaging around $19,500.

Employer-provided support

Employer-provided support is becoming increasingly important as a component of the financial support package for graduate students. As shown in Table 1, one-quarter of master's students received support from their employer, along with 11% of doctoral students and 5% of first-professional students. Since some 80% of graduate students are master's students, employer-provided support has become one of the major sources of support for graduate students. According to NPSAS population estimates, approximately 525,000 graduate and first-professional students receive some level of educational support from their employers.

Table 2 arrays employer-provided support by field, beginning with the highest percentage of students reporting support

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New Deans and Titles

Deborah Abell is Associate Vice President, Office of Graduate and Undergraduate Programs, at Morehead State University. The former dean was Marc Glasser.

Thomas M. Apple is Dean of Graduate Education at Rensselaer Polytechnic Institute. He replaces William C. Jennings.

Ronald M. Anderson is Dean of the Graduate School at Texas Tech University. Robert Sweazy was the former dean.

Charmayne Bohman is Dean of Graduate Studies at California State University, Dominguez Hills. Cecile Lindsay is the former dean.

Jerry Bradley is Associate Vice President, Research and Dean, Graduate Studies, at Lamar University. The former dean was James Westgate.

Thaddeus J. Burch, S.J. is Dean of the Graduate School at Marquette University. Lynn E. Miner was the former dean.

Marc Glasser is the Dean of the Graduate School at Salem State College. He replaces Marion Kilson.

Dianne F. Harrison is Interim Dean of Graduate Studies at Florida State University. The former dean was Alan R. Mabe.

Michael F. Herman is Dean of the Graduate School at Tulane University. Paul Barron is the former dean.

Robin B. Kanarek is Dean, Graduate and Professional Studies, at Tufts University. Robert Hollister is the former dean.

Linda LaGrange is Associate Dean of Graduate Studies at New Mexico Highlands University.

Regina S. Lightfoot is Dean of the Graduate School at Hood College. She replaces Ann L. Boyd.

Emily A. McDermott is Interim Dean of Graduate Studies at the University of Massachusetts, Boston. She replaces Ismael Ramirez-Soto.

John Mercer is Acting Dean, Graduate School at Syracuse University. The former dean is Howard Johnson. Mercer was the Associate Dean.

Mary E. Owens is Dean of the Graduate Studies Division at Coppin State College. Jerusa C. Wilson was the former dean.

C. E. Palmer is Director of the Graduate School at the University of Louisiana at Lafayette, replacing Lewis Pyenson.

Timothy J. Pettibone is Dean of the Graduate College at Oklahoma State University. The former interim dean was Alfred Carlozzi, who has resumed his role as Associate Dean.

Rachel Petty is Vice President for Academic Affairs at the University of the District of Columbia. Vernon Clark is the former dean.

Roy C. Rodriguez is Interim Dean of the Graduate School at New Mexico State University. The former dean is Timothy J. Pettibone who is currently Dean at Oklahoma State University.

Lawrence Shirley is Associate Dean, College of Graduate Education and Research, at Towson University.

Rodney Taylor is Associate Vice Chancellor for Graduate Education and Interim Dean of the Graduate School at the University of Colorado at Boulder. Their dean, Carol B. Lynch, is on a one-year appointment as CGS/NSF Dean in Residence in Washington, D.C.

Bankole Thompson is Dean of the Graduate School at Eastern Kentucky University. He replaces Pam Collins.

Janett Trubatch is Vice Provost for Graduate Studies, Research and Outreach at the University of Rhode Island. The former dean is Thomas J. Rockett.

N. William Walker is Interim Dean of the College of Gradu[illegible]nd Professional Programs at James Madison University. Dorothy A. Boyd-Rush is the former dean.

Staff Changes? Please contact Janice Goggins, Membership Coordinator, at the Council of Graduate Schools. Ms. Goggins can be reached at 202-223-3791 or at jgoggins@cgs.nche.edu.

Are you a retiring dean?

Are you recently retired or about to retire as a graduate dean?
Do you wish to stay connected with the graduate education community?

Please contact Marta Perez Drake at
202-223-3791 or at mdrake@cgs.nche.edu.

The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

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Federal R&D Budget Analysis

On Monday, February 4, the Bush Administration released its $2.1 trillion budget for fiscal year 2003. Two days later, AAAS released its preliminary analysis of proposed R&D funding in this budget. For a free, downloadable copy of this analysis, visit www.aaas.org/spp/R&D/

The total request for federal R&D in the new budget is a record $112 billion. Basic research would grow by 8.5 percent, or $2.0 billion to $25.5 billion. The biggest increases will go to DOD and NIH. For other agencies, including NSF, DOE, and NASA, the picture is decidedly mixed.

You probably know these basic facts, which have been widely reported in the press. The AAAS analysis, however, goes behind the headlines and looks at R&D in the context of the overall budget situation and the funding trends of recent years. It will help you understand how the budget process will play out in the coming months and how the science and engineering communities can play a role.

The AAAS R&D Budget and Policy Program--an objective, nonpartisan effort--is widely recognized as the most timely and authoritative source of information on the future prospects for federal funding of science and engineering.

More detailed, updated analyses will be posted regularly. The full AAAS Report on R&D in the FY 2003 Budget, prepared in collaboration by AAAS and more than 20 of its affiliated societies, will be available on the web in late March and in hard copy in early April.

For more information, please contact Kei Koizumi at the AAAS R&D Budget and Policy Program at kkoizumi@aaas.org or (202)326-6607.

Data Sources

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from their employers. Business and management students were the most likely to receive employer support, with 41% reporting an average annual support amount of $4,876. Engineering and health sciences were the other fields where more than 20% of students reported employer support. Overall, employer support ranged from $4,876 in business to $1,829 in the humanities.

Higher education debt

Last November the American Council on Education (ACE) released an issue brief on student borrowing[2] including data on student debt incurred from federal loans. According to ACE, more than one-half of all master's degree recipients graduated with federal student loan debt, averaging about $20,000 in total debt, both undergraduate and graduate. For doctoral students, 50% of doctoral degree recipients had education-related debt, and that debt averaged about $24,000. Importantly, 50% of doctorate recipients graduate with no education-related debt. First-professional students lead all others in incurring the most debt, with law and medical graduates accumulating debt averaging $61,417 at public institutions and $73,533 at private institutions.

Discussion

NPSAS 1999-2000 represents an important source of data on the financial support of students engaged in post-baccalaureate education. The National Center for Education Statistics has made the NPSAS database freely available to researchers through their windows-based Data Analysis System accessible via the Internet at nces.ed.gov/das/.

For graduate and first-professional students, the 1999-2000 results reflect the current reality of financing postbaccalaureate education, increased support from a variety of sources, but increased need to take on loans to finance graduate study. In the 1992 reauthorization of the Higher Education Amendments, Congress made loans more freely available by broadening eligibility, raising loan limits, and creating the unsubsidized Stafford loan program. As a result of these actions and the increasing cost of graduate study, more students are borrowing and borrowing higher amounts.

Of course, borrowing to finance graduate education can be seen as a worthy investment in one's own human capital. And if the graduate degrees result in greater earnings and career satisfaction, then the payoff from the loans can be seen as positive. In fact, the ACE study concluded that most students were incurring debt that was manageable given their potential future income. The key event in this equation is earning the degree. As a thoughtful higher education policy analyst in Washington said, "education-related debt is worth the price if you get the degree." ❖

Notes

[1] First-professional students are those seeking professional degrees such as the M.D., J.D., D.V.M., and O.D.

[2] American Council on Education, ACE Issue Brief: Student Borrowing in the 1990s, Washington, DC, November 2001, www.acenet.edu/resources/reports/student_borrow_90s.pdf.

McNair Memo

Funding Opportunity for the McNair Program

The U.S. Department of Education will hold a grant competition for the Ronald E. McNair Postbaccalaureate Achievement Program in 2002. The McNair Program is authorized through Title IV of the Higher Education Act as part of the TRIO Programs, to provide disadvantaged college students with effective preparation for doctoral study. Eligible students are low income and first-generation and some may be members of a group that is underrepresented in graduate education. The McNair Program targets college juniors and seniors and provides services such as summer research internships, doctoral preparation seminars, academic and cultural support, graduate school admissions and financial assistance, and mentoring.

Institutions of higher education may apply for these programs through a grant competition that will probably be due in early Fall 2002. Additional information about the McNair Program and the upcoming grant application can be located at the US Department of Education's TRIO Division website: www.ed.gov/offices/OPE/HEP/trio/mcnair.html. A copy of the last grant application package (October 1998) can be downloaded. Once the grant competition is announced (sometime this summer), the U.S. Department of Education TRIO Division will sponsor 1-day technical assistance workshops at various locations across the country.

Many McNair Programs are housed in graduate schools or work collaboratively with another division to sponsor McNair. The TRIO website has a list of the 156 currently funded McNair projects.

The Council for Opportunity in Education will host two grant proposal writing workshops for Council Institutional members, only, and a McNair Forum that is open to all participants. There is a registration fee for the Forum. For more information about institutional membership, the proposal writing workshops, or the McNair Forum, please contact Andrea Reeve, Council for Opportunity in Education, 202-347-7430, atreeve@hqcoe.org.

June 24-25	McNair Forum
June 25-26	McNair Proposal Writing Workshop, Crowne Plaza Hotel at National Airport, Arlington, VA
August 14-15	McNair Proposal Writing Workshop, Hyatt Fisherman's Wharf, San Francisco, CA

Upcoming Meeting

The Emory University Graduate School of Arts and Sciences announces a conference on **Philanthropy and the Research University**, in Atlanta, Georgia on April 15-16, 2002. The conference will engage participants in new perspectives on the partnership between philanthropies and university research. Speakers are leaders in the university and foundation communities as well as leading analysts of the entire foundation and nonprofit sectors. For program details and registration, visit www.emory.edu/GSOAS/Philanthropy_conf.html or email Aimee Pozorski at apozors@emory.edu.

CGS Website Feedback

CGS is in the process of updating its website and wants to hear from you!

Visit www.cgsnet.org and complete our website survey form under the "Members Only" section of our website.

Submit your comments by March 30, 2002!

American Politics and Higher Education

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Terrorists can flourish in the U.S. because we are an open society. Limiting the possibilities for terrorism will, inevitably, mean limiting the openness and personal freedom we cherish for all Americans. This issue is especially important for higher education because we are perhaps the most open institutions in this society. We cherish this openness and the freedom it provides for individual students and faculty members to do what they want in a free and unfettered manner. Will it always be so?

Finally, I think that the events of September 11th may well completely reorient the work of the federal government. Between 1945 and 1990, the federal government's work focused around three issues: the Cold War, the economy and federal budget deficits, and eliminating racial and sexual discrimination.

By the mid-1990s, these issues had pretty much gone away. The Cold War was a memory, the economy was extraordinarily healthy--some even thought that we had invented a new economy, and racial and sexual discrimination--at least obvious racial and sexual discrimination--was eliminated. Obviously, some racial and sexual discrimination exists, but for public policy makers, most of the cases that seem to emerge now are so politically charged that they want nothing to do with them. Consider "gays in the military" and the controversy that dogged President Clinton when he tried to address it or consider affirmative action--federal political officials are not going to touch the issue--they will let the courts decide. The problems remain but they are harder and politicians are not going to push them the way that they did even a decade ago.

But as issues related to the Cold War, the economy and discrimination became less visible, federal policy makers lost the orienting issues that had guided their work for nearly 50 years. For most of the last decade there were simply no overarching issues, and policymakers cast about for ways to make themselves relevant to the daily lives of their constituents.

This is NOT bad--it is just the way our democracy works. Politicians are like surfers--always looking for that next wave to ride into the beach--or to reelection. When the tried and true issues went away, they looked for other things.

Issues related to the well being and safety of constituents rose to the top of the list. So there was a lot of talk about HMOs, health insurance, minimum wage reform, protecting children from internet pornography, prescription drugs and a patient's bill of rights. Congress even got into the business of telling health insurers how much time a new mother should stay in the hospital. Federal higher education policy saw this as well. The price of a higher education was a really hot issue in recent years.

Those "well being of the constituents" issues belong to last year. They have disappeared from the public policy radar screen. Issues now are national security and homeland security, fighting terrorism, and protecting our citizens. Have the events of September 11th given us a new North Star? A new orienting focus for federal policymakers? Yes, they have.

If we do have a new North Star, we will have different policy debates about any number of specific topics of interest to higher education. Perhaps we will see less interest in biomedical research and more in research affecting national security. We may well see less interest in increased access to higher education for low-income students and more emphasis on stockpiling experts in international education. Maybe we will see less interest in campus crime and more interest in getting ROTC on campuses.

These "new" priorities are not necessarily bad and more emphasis on national security, research and development, and on international education would be a good thing. The Cold War focus on national security was, in many ways, a boon for our institutions and for our society. Think of what defense spending did for the development of the Internet and the world wide web, game theory, satellite technology and the mathematical modeling of business decisions. During the Cold War, the academy did not shape the research agenda as response to the needs of the government. So we will welcome these new emphases. But, we welcome it so long as it does not come at the EXPENSE of other long-standing priorities. However, if an era of economic scarcity returns in federal budgeting, we will not be able to have it all.

So what will we in the higher education community do about these changes if they occur?

The simple and easy answer is political action. However, this is NOT higher education's strong point. We do not have a Political Action Committee that doles out contributions. We do not do fundraisers. We do not do issue advertising. We do not do focus groups except when we have a problem, and we cannot threaten to defeat a candidate at the polls.

The challenge for us will be to recognize the most basic premise of Democracy--which the public determines the values that will dominate in the political arena--and to act upon it. What we bring to the table--our role as engines of innovation that generate the nation's best hope for long-term economic growth and social progress--is widely recognized. We do not have to tell politicians or the public this; they get it intuitively. But, we must think about ways that our resources and energies can be brought to bear in ways that will make a clear and compelling case for our institutions and students in this new world.

We are not as good at this as we should be. We assume that our mission is noble, that everyone likes us, and that public support--especially financial support--will surely follow. The first assumption is absolutely true, the second is largely correct, but the third--the one that involves financial support--does not necessarily follow. If you want an example of nobility, public acclaim and minimal financial support, think about the public schools in any urban area and the people who teach in them.

We will make the difference by the way that we organize ourselves to influence the public policy debate in the coming years.

Graduate school deans have an important role to play on campuses and in national debates--especially as a graduate degree becomes increasingly central to the best career opportunities and as research conducted in university laboratories becomes ever more central to national well being. Your voice will count. But it will not be sought out.

Indeed, and here is the bad news: federal policy often focuses on research needs but rarely on students. This is because many congressional aides went to graduate school without financial support and think others can and should do the same. Yet, another problem is the tendency to define graduate education as law, medical and business schools. Indeed, it has been a long time since a distinguished national commission looked at graduate education and came forward with a set of policy recommendations that could be the basis for federal policy. One of the very few casualties of the "Republican revolution" and the "Contract with America" was that the Patricia Roberts Harris program was eliminated. Put another way, one-third of the Department of Education's commitment to graduate education went away. Most of us breathed a sigh of relief that we did not lose the Javits program as well.

Graduate education starts with some very important assets and advantages. But the days when these would be sufficient for our task passed well before the "new year" arrived on September 11th, and they are certainly gone now. Graduate deans need to make themselves heard--both on campus and in the corridors of power.

We need to see the new public policy environment as both a challenge and an opportunity. A challenge because it is likely to be far different than anything any of us have seen in our lifetimes. An opportunity because the contributions our institutions--and especially graduate schools--have to offer are profound. ❖

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COUNCIL OF GRADUATE SCHOOLS
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Volume XXXV, Number 3 April 2002

Compliance Issues Facing Graduate Deans and Students in the Post-September 11th Era

by Ronald M. Atlas, Graduate Dean at the University of Louisville and President Elect of the American Society for Microbiology

In the aftermath of September 11 and the subsequent bioterrorist anthrax attacks, policymakers began to fill the perceived gaps in our public health and legal systems--Congress enacted new legislation and the Administration began to rigorously enforce regulations aimed at preventing future acts of terrorism. These actions have direct impacts on colleges and universities. Several have already received subpoenas as the new focus on terrorism places higher education and especially graduate schools in the spotlight. Soon we will have to maintain accurate accountings of our foreign graduate students and provide information to a national tracking system. As university administrators, we have a responsibility to familiarize ourselves with the myriad of new regulatory requirements. We must assure compliance lest we face personal criminal and civil sanctions as well as the responsibility of possibly failing to halt future acts of terrorism. Graduate schools should be developing policies and procedures that will ensure compliance with new and existing laws and regulations while supporting the academic tradition of open inquiry and expression of ideas.

USA Patriot Act

The USA Patriot Act, signed into law on October 26, 2001, expanded law enforcement's surveillance and investigative powers and established new prohibitions on the possession of biological agents. This far-reaching antiterrorism law has raised concerns among civil libertarians. It permits domestic criminal investigators to work jointly with foreign intelligence and to obtain records that normally would be considered confidential, such as e-mail communications and library records. Universities can be required to provide records on the activities of graduate students, and the law requires that such requests by law enforcement be kept confidential so as not to alert would-be terrorists.

In the March 1, 2002, issue of the *Chronicle of Higher Education*, Scott Carlson and Andrea Foster provided a legal analysis of the key provisions of the USA Patriot Act that could impact college and university technology systems, stating that the act:

- permits federal agents to obtain stored voice mail without wiretap authorization;
- compels Internet service providers to turn over to federal agents who have a subpoena: subscriber's telephone connection records, the subscriber's identity, the length of service, and how it was paid for;
- allows federal agents to use a "trap and trace" device to obtain dialing, routing, addressing, or signaling data sent by wire or electronic communication;
- allows federal agents to install technological tools to intercept and collect information from Internet traffic;
- allows Internet service providers to call in federal agents, without a search warrant, to help them intercept the communications of a computer hacker; and
- increases penalties for computer crimes, including transmitting "viruses."

These provisions have a direct impact on university information and communication systems especially when the university is the Internet provider.

The USA Patriot Act also had a direct, albeit less publicized, impact on biomedical researchers. The Patriot Act expanded the biological weapons statute by adding an unlawful possession provision to section 175b of Title 18 of the criminal code. This was a clear reaction to the bioterrorist anthrax attacks and was aimed at providing law enforcement with the tools to prosecute individuals who might be trying to develop biological weapons. The Patriot Act established a set of individuals who are considered high risk and restricted them from possessing select agents, that is any of the 36 dangerous pathogens and toxins listed in Appendix A, Part 72 of Title 42 of the Code of Federal Regulations.

A survey of U.S. colleges and universities conducted by Richard Weller and myself for the Department of Energy indicates that about 250 academic institutions probably possess select agents. As the National Institutes of Health expands its efforts to counter the threat of bioterrorism, the number of academic institutions with agents such as the anthrax-causing bacteria could increase.

As prescribed by the USA Patriot Act, restricted persons are not permitted to ship or transport interstate or foreign commerce, or possess in or affecting commerce, any biological

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agent or toxin, or receive any biological agent or toxin that has been shipped or transported in interstate or foreign commerce, if the biological agent or toxin is listed as a select agent in subsection (j) of section 72.6 of title 42, Code of Federal Regulations, pursuant to section 511(d)(l) of the Antiterrorism and Effective Death Penalty Act of 1996 (Public Law 104-132), and is not exempted under subsection (h) of such section 72.6, or appendix A of part 72 of the Code of Federal Regulations. Simply put, if you cannot buy a handgun or if you are an alien from a country designated as supporting terrorism, you may not possess a select agent.

Specifically, a restricted person is an individual who:

- is under indictment for a crime punishable by imprisonment for a term exceeding one year;
- has been convicted in any court of a crime punishable by imprisonment for a term exceeding one year;
- is a fugitive from justice;
- is an unlawful user of any controlled substance (as defined in section 102 of the Controlled Substances Act (21 U.S.C. 802));
- is an alien illegally or unlawfully in the United States;
- has been adjudicated as a mental defective or has been committed to any mental institution;
- is an alien (other than an alien lawfully admitted for permanent residence) who is a national of a country as to which the Secretary of State, pursuant to section 6(j) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)), section 620A of chapter 1 of part M of the Foreign Assistance Act of 1961 (22 U.S.C. 2371), or section 40(d) of chapter 3 of the Arms Export Control Act (22 U.S.C. 2780(d)), has made a determination (that remains in effect) that such country has repeatedly provided support for acts of international terrorism;
- has been discharged from the Armed Services of the United States under dishonorable conditions.

Currently restricted individuals include graduate students from Iraq, North Korea and other nations designated by the State Department as supporting terrorism. Given that this list of countries is subject to change, a graduate student could become restricted in the middle of a dissertation project--the possibility of which graduate deans need to be acutely aware. Universities are responsible for submitting information to the Attorney General to prevent restricted individuals from gaining access to select agents. The penalty for knowingly violating this section of the Patriot Act is a fine, imprisonment for up to 10 years, or both.

The USA Patriot Act also makes it an offense for a person to knowingly possess any biological agent, toxin or delivery system of a type or in a quantity that, under the circumstances, is not reasonably justified by prophylactic, protective, bona fide research or other peaceful purpose. On the surface this seems quite appropriate--why would we allow anyone to possess a toxin or pathogen for anything other than a legitimate reason? But as Senator Patrick Leahy warned during passage of the Patriot Act, this provision could have unanticipated ramifications depending upon how one defined "bona fide" or "reasonably justified."

Already, a problematic situation arose at the University of Connecticut where a graduate student was reportedly instructed to autoclave a specimen believed to contain anthrax-causing bacteria but instead placed the specimen in a freezer. Another student reported that the continued possession of anthrax bacteria might not be for a "bona fide" research purpose. This resulted in an investigation by law enforcement and the University who had to examine whether the possession of the sample legitimate. Could this have been a criminal violation of the USA Patriot Act for which the student could have been imprisoned for up to 10 years? Should a student who does not explicitly follow the directions of a professor be expelled when the result is an investigation that disrupts the activities of the institution? At this point it appears that prosecution or further action is not forthcoming. But given that similar questions can arise at other universities, graduate deans would be wise to work with university legal counsels to develop procedures for dealing with allegations of misconduct. Graduate deans clearly have a new oversight role.

Additional Legislation Controlling Possession of Biological Agents

Several other acts and regulations also have important compliance implications for research universities. Biosecurity has been an issue of increasing importance, starting in 1996 when Congress took steps through the Select Agent Rule to impose stricter controls on the transfer of certain biological agents and toxins following the May 1995 incident in which a private citizen purchased three vials of plague. Since 1997, shipments of select agents have been controlled by the Centers for Disease Control and

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Perspectives on Preparing Future Faculty:

In Their Own Words PFF Students Share Experiences, Lessons Learned

by Tracie Fellers, Program Manager for the Preparing Future Faculty Program

This article is based upon a Preparing Future Faculty Focus Group, conducted January 26, 2002, Washington, D.C., by Barbara Millis, Director of Faculty Development and PFF coordinator at the United States Air Force Academy.

Eight doctoral students participating in Preparing Future Faculty (PFF) programs in the social sciences and humanities, and one graduate of a PFF program in science and mathematics, capped off their attendance at the annual meeting of the Association of American Colleges and Universities in January with a final session that allowed them the rare opportunity to meet and share experiences across their diverse campuses and disciplines.

The final session, a focus group made up of the nine PFF attendees, followed three days of activities related to the changing roles of faculty as part of the AAC&U annual meeting, held January 23-26, in Washington, D.C. Seven disciplinary associations collaborated on activities at the conference for PFF students. These seven have conscientiously developed and administered discipline-related PFF activities: the American Historical Association (AHA), the American Political Science Association (APSA), the American Psychological Association (APA), the American Sociological Association (ASA), the National Communication Association (NCA), the National Council of Teachers of English (NCTE) and the American Association of Physics Teachers (AAPT).

> **" . . . [I]t's almost difficult for me to step back and say what have I learned from PFF because I can't imagine graduate school without it . . . at every level it's been valued."**

Barbara Millis, Director of Faculty Development at the United States Air Force Academy and a PFF campus coordinator for the Colorado cluster, conducted the focus group. The nine PFF students spoke candidly about the difference PFF has made in their graduate studies and in their preparation for careers in academe. The participants represented PFF programs at the University of Arkansas, the University of Georgia, Indiana University, Miami University, North Carolina State University, and Texas A&M University. Their disciplines included communication, psychology, sociology and physics.

Dr. Millis asked the participants key questions related to the AAC&U meeting and to their PFF experiences. Their responses reflect lessons learned and emphasize their knowledge of options and institutional environments awaiting them as new faculty members. Their perspectives on the impact and value of PFF underscore what the PFF programs in science and mathematics (PFF 3) and the social sciences and humanities (PFF 4) have accomplished since they were launched in 1998 and 1999, respectively.

The following summarizes some of the key views to emerge from the PFF focus group.

1. There are many models for those who seek faculty careers.

One student expressed appreciation for her PFF program, noting: "There is really a place for many different types of faculty. I wish that message could get across to other graduate students to a greater extent because I know some students feel frustration about being at a large research institution and think this is their only option. They are just not aware of the many different types of institutions out there and the many possibilities for faculty positions."

A student who has been "completely integrated in PFF from day one" of her doctoral program expressed a similar viewpoint: "You should be prepared to know what type of opportunities are out there, what kind of institutions are out there and I've gotten that by being in a department that is pro-PFF . . . and that recruits first-year students to get involved and start thinking about finishing the Ph.D. as much as starting the Ph.D. . . ."

2. The opportunities provided by PFF for teaching, research and service are invaluable.

When asked about the most important things that PFF has done to prepare doctoral students for teaching and learning responsibilities, including research, service and life in an academic department, one student responded: "I think overall our PFF program really prepares the scholar[s] at [my university] for a variety of choice[s] and [for the] multifaceted reality of our faculty in terms of teaching at the different universities and different kind[s] of class[es] you are going to teach, and I think that's the most valuable experience I have encountered as a PFF scholar."

Another student described the certificate of pedagogy that is offered to doctoral students as part of her PFF program, saying it has been "really important for [her] in so far as it seems to validate, or re-validate, reaffirm the importance of teaching even at a big research institution . . . . It seems to really be integrating the enterprise of teaching to my overall scholarship, which I think is really important."

Yet another student spoke enthusiastically about the professional development opportunities created by her PFF program. Before she and other doctoral students in her department began participating in PFF activities, "Most of our professional development . . . leaned toward the research and not enough in the teaching. PFF has been something that has really, really become important for us because we have been open to all of these things . . . that we really didn't know about before. We didn't know about the diversity in institutions, the different emphasis that different institutions have on teaching and also developing our own teaching styles, having classes on that . . . . Also the shadowing experiences [with a mentor or mentors at a partner institution] have been really eye-opening and worked out well for me. I was able to see the diversity and the different student body and how that plays out in the faculty and student relationships [and] also the social environment."

In regard to the varied roles of faculty members, another student spoke of her program's efforts to "integrate teaching and research. In other words, doing research on teaching, and that has been a wonderful opportunity for me . . . it's again something that probably was going to happen [at the university], but this gave it a lot more legitimacy amongst some of the other faculty members that this is scholarship that is worth doing . . ."

Another student in the same discipline, but at a different university, followed up on those thoughts, saying: "PFF has really shown me how . . . teaching, research and service

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PFF Student Experiences, Lessons Learned

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are not discrete entities and how the lines are constantly blurred, how you can actively blur the lines and have a much more fulfilling academic career . . . ."

3. There is a need to change the prevailing paradigm in graduate education.

One student spoke of "feel[ing] very fortunate that I do have good mentors that support me," but added that some "peers in the same department" have not had the same experiences. "I think having something more systemic on a . . . department level so that you don't have the students that fall through the cracks [is] very important for a graduate program," she said, adding that it is also important to "change the paradigm of what we think about a faculty position . . ." For example, while some students in her program were "very enthusiastic" about PFF from the start, "[t]here are some other students that would just focus on the research and have no interest in teaching, and . . . those students . . . felt that PFF was a way of tracking them into a lower hierarchy. They were part of the mentality about the hierarchy of institutions and a lot of that is connected to what we think about learning or what we think about teaching, so what we need to do is transform the pedagogy about what higher education is and what learning is about."

The bottom line, as cogently expressed by another PFF student, is that PFF provides opportunities, whether those opportunities relate to "service, research, teaching, [or] life as an academician." The comments of another student, who is nearing the completion of her dissertation, are equally compelling. As she interacted and met with other PFF students at the AAC&U meeting, she realized how "fortunate" her involvement with PFF has been. " . . . [I]t's almost difficult for me to step back and say what have I learned from PFF because I can't imagine graduate school without it . . . at every level it's been valued. ❖

The Preparing Future Faculty Science and Mathematics program (PFF 3), funded by the National Science Foundation, was initiated to develop model programs in science and mathematics departments at 19 universities, with the goal of transforming the preparation of future science and mathematics faculty. Those programs were developed in collaboration with the American Association of Physics Teachers (AAPT), the American Chemical Society (ACS), the American Mathematical Society (AMA), the Mathematical Association of America (MAA) and the Association of Computing Machinery/Special Interest Group on Computer Education (ACM/SIGCE).

The Preparing Future Social Science and Humanities Faculty program (PFF 4), funded by the Atlantic Philanthropies Inc., was initiated to develop model programs in social sciences and humanities departments at 25 universities in collaboration with the AHA, APSA, APA, ASA, NCA and NCTE.

PFF, launched in 1993 as a pilot project at 17 doctoral-producing institutions across the country with funding from The Pew Charitable Trusts, is a joint undertaking of CGS and AAC&U.

To learn more about PFF, visit the PFF website at www.preparing-faculty.org, or e-mail the national PFF office at tfellers@cgs.nche.edu.

Compliance Issues in Post-9/11 Environment

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Prevention (CDC) under rules promulgated as a result of the Antiterrorism and Effective Death Penalty Act. The select agent transfer rules are designed to ensure that these agents are not shipped to parties who are not equipped to handle them appropriately or who lack proper authorization for their requests. But now the Congress, with the support of the Administration, is in the process of passing a law that would regulate the possession of select agents.

On December 12, 2001, H.R. 3448, the Public Health Security and Bioterrorism Response Act of 2001, supported by Representative W. J. "Billy" Tauzin (R-LA), was passed by the House of Representatives, under suspension of the rules. On December 20, 2001, the Senate passed by unanimous consent the Bioterrorism Preparedness Act, S. 1765, which is sponsored by Senators William Frist (R-TN) and Edward Kennedy (D-MA). The provisions of these bills generally do four things: they track the acquisition, transfer and possession of certain biological agents and toxins; they require safeguards and security regulations to be followed; they collect information for law enforcement; and they establish a process for alerting authorities about unauthorized attempts to acquire select agents.

Both the Frist/Kennedy and Tauzin antibioterrorism bills, S. 1765 and H.R. 3448, include sections which would:

- amend the Public Health Service Act to require the Secretary of the Department of Health and Human Services (DHHS) to establish and maintain a list of each biological agent that has the potential to pose a severe threat to public health and safety and to regulate the transfers of listed biological agents;
- expand the current transfer regulations governing "select agents" (the 36 biological agents and toxins on the list maintained by the CDC) to require that all persons who possess or use select agents register with the DHHS Secretary and be subject to certain safety and security requirements and inspections;
- impose criminal penalties for the possession of a select agent for which the person has not obtained a registration or for the transfer of a select agent to an unregistered person;
- prevent the disclosure of information identifying a registered person or location by a federal agency except for public health and safety reasons or to congressional committees;
- require that the DHHS Secretary conduct a biennial review and revisions of the select agent list and maintain a national database of the location of select agents with information to facilitate their identification and traceability;
- permit the Secretary to make exemptions to the registration requirements for inactivated or attenuated strains of select agents used in vaccines or other products for legitimate medical research or when the select agent is presented for diagnosis, verification, or proficiency testing purposes at a clinical laboratory and is promptly destroyed or transferred to a registered facility after identification;

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New Deans and Titles

Rathindra N. Bose is Vice President and Dean, Research and Graduate Studies, at Kent State University. He replaces Walter C. Adams.

Charles Cullum is Associate Provost and Dean of the College of Graduate Studies at Kutztown University of Pennsylvania. Dr. Sandra J. Hamman was the former Acting Dean.

Carol L. Folt is Dean of Graduate Studies at Dartmouth College. The former dean was Roger Sloboda.

Alice Gast is Vice President for Research and Associate Provost at the Massachusetts Institute of Technology.

Sandra J. Hamman is Director of Graduate Studies and Research at Kutztown University of Pennsylvania.

Staff Changes? Please contact Janice Goggins, Membership Coordinator, at the Council of Graduate Schools. Ms. Goggins can be reached at 202-223-3791 or at jgoggins@cgs.nche.edu.

In Memoriam

Jacob E. Cobb, 91, of Terre Haute, Indiana, died on Wednesday, January 23, 2002. He was Professor Emeritus of Education and Psychology and Dean Emeritus of the School of Graduate Studies at Indiana State University. He served as Dean of the School of Graduate Studies from 1964-1976 and was Chair of the Council of Graduate Schools in 1973. For more information, please contact the Council of Graduate Schools.

Are you a retiring dean?

Are you recently retired or about to retire as a graduate dean?
Do you wish to stay connected with the graduate education community?

Please contact Marta Perez Drake at 202-223-3791 or at mdrake@cgs.nche.edu.

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The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

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Upcoming Meetings

"Development for Deans: Spring Session," Council for Advancement and Support of Education, at Wyndham Emerald Plaza Hotel, San Diego, California, from May 1-3, 2002. Contact: (202) 328-2273, conferences@case.org or www.case.org.

"Knowing the Essentials," seminar, John Brown Limited, in San Francisco, California, from May 13-15, 2002. Contact: JBL, P.O. Box 296, 46 Grove Street, Peterborough, New Hampshire 03458; (603) 924-3834, fax (603) 924-7998 or www.JohnBrownLimited.com.

"Teaching Research Ethics," workshop, Indiana University and other sponsors, at Indiana University, Bloomington, Indiana, from May 15-18, 2002. Contact: Kenneth D. Pimple, Poynter Center for the Study of Ethics and American Institutions, Indiana University, 618 East Third Street, Bloomington, Indiana 47405-3602; (812) 855-0261, pimple@indiana.edu or poynter.indiana.edu.

Accreditation workshop, Accrediting Council for Continuing Education and Training, in Washington, D.C., from May 20-21, 2002. Contact: Vicki Kilpatrick, (202) 955-1113, ext. 233, vrkil@accet.org or www.accet.org.

"Thinking Globally: Broadening the Context of Multicultural Dialogue and Action," the 17th Annual National Conference of the National Multicultural Institute, will be held from May 30-June 2, 2002, at the Hyatt Regency Washington on Capital Hill in Washington, D.C. Contact: 3000 Connecticut Avenue, N.W., Suite 438, Washington, D.C. 20008; 202-483-0700 ext. 227, nmci@nmci.org or www.nmci.org.

"Work/Life Conference: Navigating Balance Between Work and Personal Life at Institutions of Higher Education," University of Wisconsin System, in La Crosse, Wisconsin, from June 13-14, 2002. Contact: Louise Root-Robbins, University of Wisconsin System Administration, 1220 Linden Drive, 1616 Van Hise Hall, Madison, Wisconsin 53706-1559; (608) 262-6831 or lroot-robbins@uwsa.edu.

"Leadership Program for Department and Division Chairs and Deans," workshop, American Council on Education, in Washington, D.C., from June 18-21, 2002. Contact: ACE, 1 Dupont Circle, Washington, D.C. 20036; (202) 939-9343, fax (202) 785-8056 or www.acenet.edu/programs/dlp.

Items of Interest

The **Fulbright Scholar Program** is offering lecturing/research awards for the 2003-2004 academic year. Application deadlines begin May 1, 2002. For information, contact the Council for International Exchange of Scholars (CIES) at 3007 Tilden Street, N.W., Suite 5L, Washington, D.C. 20008-3009; 202-686-7877; apprequest@cies.iie.org. Information and an online application are also available at www.cies.org.

The **National Research Council** announces the 2002 Postdoctoral and Senior Research Associateship Programs. The programs are available to Ph.D., Sc.D. or M.D. scientists and engineers. Application deadlines are April 15 and August 15, 2002. For application information contact: National Research Council, Associateship Programs (TJ 2114/D3), 2101 Constitution Avenue, N.W., Washington, D.C. 20418; 202-334-2760; rap@nas.edu or www.national-academies.org/rap.

Salvation at Stake: Christian Martyrdom in Early Modern Europe

2001 CGS Arlt Award Winner

Brad Stephan Gregory

Brad Stephen Gregory is the winner of the 2001 Gustave O. Arlt Award in the Humanities. Following are his comments, given at the Awards Luncheon during the 41st CGS Annual Meeting in San Diego, California, in December of 2001.

I am deeply honored that my book has been chosen as the winner of this year's Gustave O. Arlt Award, and it is a pleasure to express my gratitude to the Council of Graduate Schools and the awards committee. I would like to make a few remarks about the book itself, as well as about the unlikely trajectory of my education, which underscores the importance of graduate school.

Salvation at Stake has two primary aims, one substantive and the other methodological. They are related to one another. The book is a cross-confessional study of Christian martyrdom in the Reformation era, from the late Middle Ages into the seventeenth century, especially in England, France, the Low Countries, and the Germanic lands of the Holy Roman Empire. It makes the case for the central importance of martyrdom in the formation of religious identities among Protestants, Anabaptists, and Roman Catholics, and as a window on the religious sensibilities of the age. At the same time, the study argues for and embodies a radical anti-reductionism in the study of religion, one that rejects all theories that hinder the attempt to understand men and women as they understood themselves. This methodological position is applied to the martyrs themselves, to their fellow believers who sustained them in communities of belief, to the ecclesiastical and civil authorities responsible for their deaths, and to those who memorialized their memory. By understanding everyone on their own terms, we come to new insights about the central importance of religious disagreement in the Reformation era, and its contribution to the formation of the modern world in both institutional and ideological terms.

Aside from being a good student, nothing in my background up through high school hinted at a career in academia, still less the writing of an award-winning book in the history of religion. My father was a fifth-grade schoolteacher, my mother a part-time floral designer; I grew up in a small town in northern Illinois, and was very rarely even on a college campus before my freshman year as an undergraduate; the height of our home library reference section was a 1969 edition of the World Book Encyclopedia. I was much more inclined toward the natural sciences than the humanities in high school, and, wanting to escape the "boring farms and suburbs" around Chicago, attended Utah State University to study (so I thought) wildlife science or environmental studies. My major changed from natural resources to psychology to music, which was followed by a junior year abroad at Louvain, Belgium, where I studied philosophy. I changed my major at Utah State to history for my senior year, so that I could better understand the history of Western philosophy in context. Before my senior year, I had taken only one history course--hardly a strong sign of a future career as a history professor! My experience in Europe got me hooked on its history and culture, but it was graduate school--a licentiate in philosophy at Louvain, an M.A. in history with the late Heiko Oberman at the University of Arizona, and a Ph.D. with a marvelous group of European historians at Princeton--which turned me toward the study of early modern Christianity, and set me on my vocation. Dedicated, demanding teachers both inspired and channeled my passion for the past, showing me how to acquire the skills I needed in order to become a scholar-as well as a teacher, I can only hope, who emulates them. I am especially grateful to my dissertation advisors, Anthony Grafton and Theodore Rabb, who let me write the dissertation behind Salvation at Stake as I wanted to, despite the eventual length of the thesis!

The moral of the story: graduate education nurtures minds in unforeseen and unforeseeable ways. It is a joy to have been part of that as a student, and to be part of it now as a professor myself. And it is a delight to have my book recognized by the Council of Graduate Schools.

2002 New Deans Institute and Summer Workshop for Graduate Deans

July 13-17, 2002 ◆ Hilton Portland ◆ Portland, Oregon

CGS invites graduate deans, associate and assistant deans, and other faculty and staff from colleges, universities and associations to network with their colleagues in the Pacific Northwest showcase of Portland, Oregon. The CGS Board, staff and other specialists serve as core faculty for the New Deans Institute and Summer Workshop. CGS welcomes you to this unique opportunity to share knowledge and work on issues facing graduate education.

The New Deans Institute is tailored to those who have been in their graduate dean role for two years or less. Other members of the graduate education community are welcome to attend. Institute topics will include: Government and Organization; Political Environments at the University, State and Federal Level; Budget and Staff Management; and Quality Dimensions of Graduate Education.

The Summer Workshop will provide several opportunities to network. Workshop plenary sesssions include: Federal Policy for Graduate Education: An Insider's View; Trajectories in Master's Education; Enhancing Diversity Presence: What Works; The Responsive Ph.D.: A Report in Progress; and National Security and Graduate Education: Balancing Competing Claims. Hot topic sessions are designed to provide small, interactive setting for attendees to discuss pressing issues.

For more information, visit www.cgsnet.org, e-mail mdrake@cgs.nche.edu or call 202-223-3791.

Compliance Issues in Post-9/11Climate

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- require limited access to listed agents in registered facilities and the establishment by the DHHS Secretary in consultation with the Attorney General of appropriate security requirements for registered facilities possessing, using, or transferring listed agents, considering the risk such agents or toxins pose to public health and safety; and
- require registered facilities to submit the names of individuals with access to select agents to the Attorney General, who will use criminal, immigration, and national security databases available to the federal government to ensure that such individuals identified as restricted are denied access to select agents and toxins.

The section of most concern to academic institutions is the mandatory clearance procedure that requires registered facilities to "promptly" submit to the Attorney General the names "and other identifying information" of individuals who have a legitimate need to handle or use listed agents and toxins. How will we notify the Attorney General? What specific information will we need to submit? What will be the timeframe for notification? The bill directs the Attorney General to use "criminal, immigration, and national security databases available to the federal government" to ensure that such individuals (if they are restricted persons under 18 USC 175b) are denied access to such agents and toxins. The intent of this provision seems to be that no one be given access to material until it is determined by the Attorney General that they do not pose a security risk. If so, the law may require facilities to withhold access until the individual in question has been cleared by the Attorney General. It will be critical that the government accomplish its database checking quickly so as not to discourage, disrupt, or slow valuable research. Regulations when they are written will need to include a specific timeframe within which the Attorney General must provide notice to the facility that the individual may be given access to material.

It is unclear if the databases available to the Attorney General contain information about every listed definition of a "restricted person" and how the Attorney General will "promptly" check the things named in the new law, i.e., whether the individual is named in a warrant, is under law enforcement or intelligence agency investigation, or suspected of seeking to covertly obtain information. Can the criteria for restricted persons be checked using the National Instant Criminal Background Check System (NICS)? Will academic institutions be required to perform the checks, and if so, will the regulations give the Attorney General the discretion to authorize them to access NICS and perform the check? One possible approach is a provisional access process, where the facility may have the individual complete an application form for access which lists all the restricted person criteria and asks the individual to certify that he or she is not a restricted person. The application would include a notice to the individual of the civil and criminal penalties for false certification. The application could then be provided to the Attorney General for review and confirmation that the person is not a restricted person. At this point we must await the regulations that will prescribe what actions we as academic administrators must take to ensure compliance.

Export Regulations

In addition to the USA Patriot Act and the pending legislation that would control possession of select agents, graduate deans need to pay special attention to the conditions under which export licenses are required, as there are situations where such licenses are required for foreign nationals even when they are working or studying within the United States. This can have a direct impact on graduate students and post-doctoral researchers. Although export licenses normally are not required for foreign nationals working in university research laboratories who are performing basic research that will be published, export licenses are required in some situations. This can be, for example, where proprietary information is involved and/or when the results are not intended for the public domain. In such cases, exports are deemed to have occurred even though the foreign national remains within the United States. Such situations are more likely in government and industrial laboratories where proprietary and restricted research often occur. However, such situations increasingly may arise at academic institutions as universities seek to obtain patents and to derive commercial value from the intellectual property generated by faculty, staff, and students. Once a disclosure is made of a possible patent application, one must determine whether an export license is required if foreign nationals are involved in the project. This well may involve graduate students involved in such research projects. The deemed export rules could restrict the flow of materials and information to a foreign graduate student until an export license could be obtained. Since a number of pathogenic microorganisms require export licenses, a student working on discovering a new drug for the treatment of diseases such as anthrax might have to obtain an export license to continue his or her experiments. Similar restrictions apply to other fields, such as computer sciences, where an export of technology or source code (except encryption source codes), for example, is "deemed" to take place when it is released to a foreign national within the United States. Questions about export licenses requirements should be directed to the Department of Commerce: Gene Lewis for deemed export issues (process) 202-482-6109 or Jim Seevaratnam for Chem/Bio technology 202-482-3343.

Concluding Comments

In this post-September 11th environment, graduate deans may have to keep new kinds of records and background clearances, restrict access to laboratories and other resources, and institute enhanced security measures. Universities will be faced with a complexity of laws and regulations that directly impact the graduate education enterprise.

Dr. Ronald Atlas is Dean of the Graduate School at the University of Louisville. He has been on the University of Louisville faculty since 1973 as a professor of biology. He holds a B.S. from the State University of New York at Stony Brook in 1968, an M.S. from Rutgers University in 1970 and a Ph.D. from Rutgers University in 1972.

Dr. Atlas presented at the 2001 CGS Annual Meeting in San Diego on "Working with the Media in a Post-September 11 Environment" and will be speaking at the CGS Summer Workshop on "National Security and Graduate Education: Balancing Competing Claims."

CGS Seeks Nominations...

for the

CGS/Peterson's Award for Promoting an Inclusive Graduate Community

This annual award recognizes innovative institutional programmatic efforts in the identification, recruitment, retention and graduation of minority graduate students. Programs should demonstrate creative approaches that enhance current recruitment practices and that can serve as models for other institutions. CGS Member institutions are eligible for the application process.

Proposal deadline: September 3, 2002

Visit CGS's website at www.cgsnet.org (under "Programs, Services and Awards") for details or contact Francine Simons at 202-223-3791 or fsimons@cgs.nche.edu.

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COUNCIL OF GRADUATE SCHOOLS
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Volume XXXV, Number 4 *May 2002*

Graduate Education and the Diversity Debate

by Cristina González, Dean of Graduate Studies, University of California, Davis, and Chair, CGS Advisory Committee on Minorities in Graduate Education

It is becoming increasingly clear that diversity fuels the engine of the knowledge-based, global economy, which is based on the maximization of talent, and that institutions of higher learning must meet the challenge of producing the new economy's leaders. As Deborah Van Opstal has recently pointed out, the economic future of the United States depends on its highly-skilled workforce. Low-skilled labor, which minorities traditionally have provided, is decreasing in importance, and this nation cannot compete successfully for such jobs with less prosperous countries. The fastest-growing segment of the community, the minority population, is also the most educationally disadvantaged. Unless these individuals' access to higher education increases, national competitiveness will erode, and everyone's standard of living will decline.[1]

The idea of diversity as a concession, or as a past-oriented reparation to victims of racism, is giving way to a view of diversity as an imperative, or a future-oriented investment in individuals as human capital. We are in transition from 20th Century ideals of racial equity to 21st Century realities of national competitiveness:

Racial Equity	——	***National Competitiveness***
Concession	——	**Imperative**
Past-oriented	——	**Future-oriented**
Reparation to Groups	——	**Investment in Individuals**

In the racial equity model, groups that have suffered from discrimination are provided a leveling consideration in order to compensate for past social injustices that may have had a harmful effect on their opportunities. Because the goal is greater fairness for minorities, this action has often been perceived as a concession to certain groups.

In the national competitiveness model, on the other hand, individuals of all races are evaluated on their potential to make contributions to society in the future. Because the goal is greater prosperity for the country, this action is increasingly perceived as an imperative affecting all individuals.

It is probably not a coincidence that the assault on the racial equity model started in California, the most diverse state in the country, and that California is quickly moving towards a national competitiveness model. With minorities on the verge of becoming the majority of that state's population, the idea of offering reparations to certain groups may seem awkward. At the same time, the need to make an investment in all individuals is becoming obvious. California cannot afford to overlook the need of its minority residents to obtain a university education, because these individuals represent the bulk of the state's future workforce. Demography, thus, seems to be a major contributing factor to the paradigm shift. Paradoxically, a focus on greater national competitiveness may result in greater racial equity.

The corporate world's support for affirmative action in Michigan shows that business has become acutely aware of the importance of a diverse and culturally-sophisticated workforce. According to Harry J. Pearce, Vice Chairman of General Motors, which filed an amicus brief in support of the University of Michigan, "college students who experience the most racial and ethnic diversity in classrooms and during interactions on campus become better learners and more effective citizens. Those are exactly the types of persons we want running our global business."[2] Following General Motors' lead, other Fortune 500 corporations, including Steelcase, Bank One, Abbot Laboratories, DuPont, Dow Chemical, Eastman Kodak, Eli Lilly, General Mills, Intel, Johnson and Johnson, Kellogg, KPMG International, Lucent Technologies, Microsoft, PPG Industries, Procter and Gamble, Sara Lee, Texaco and TRW, filed an amicus brief arguing that educational diversity is good for business. As James Hacket, president of Steelcase, put it: "Without a strong commitment to diversity from the world's leading academic institutions, it will become more and more difficult for multi-national corporations to compete at the global level."[3]

The transition from a racial equity model to a national competitiveness model is yet another chapter in the long history of the university as the source of leaders who are "at the height of the times," to use José Ortega y Gasset's expression. [4] Since its inception in 12th Century Europe, when the change from an agricultural, barter economy to an urban, cash economy made it necessary to educate leaders with corresponding practical skills, the university has continuously evolved in order to meet changing social needs, as Clark Kerr has shown. [5]

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Diversity Debate

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Social needs are again changing. In the years between the fall of the Berlin Wall and the collapse of the Twin Towers, racial and ethnic tensions have emerged as some of the biggest threats to societies all over the world. Having an appreciation and understanding of the perspectives of multiple communities in this country and around the world is more important than ever before. At the same time, the knowledge-based, global economy requires high levels of preparation. Today, talent is the name of the game. Countries successful at developing know-how and importing it from elsewhere around the world will have a clear edge in this economy, as Anna Lee Saxenian has recently pointed out.[6]

The competition for talent is particularly fierce at the graduate level, which is closely related to the production of new knowledge, the basis of wealth in the present era. The diversity debate, however, has focused mainly on undergraduate admissions practices. A number of university presidents, including Frank Rhodes, President Emeritus of Cornell University, have recently advocated the creation of an undergraduate admissions process looking at the whole applicant, including his or her past accomplishments and potential for future leadership, rather than mechanically ranking the applicant according to a few isolated and potentially biased indicators.[7] Rhodes quotes Cardinal John Henry Newman, Founder of the Catholic University of Dublin, who wrote over one hundred years ago that: "A University is, according to the usual designation, an Alma Mater, knowing her children one by one, not a foundry, or a mint, or a treadmill."[8] This is precisely how graduate admissions has always operated. Graduate programs have consistently judged applicants according to multiple criteria, including not only past accomplishments and potential for future leadership, but also research and teaching interests that match those of the faculty and meet the needs of the university and of society. As the knowledge-based economy unfolds, and the competition for talent deepens, the individualized admissions methods typical of graduate programs are becoming extended to undergraduate education.

Graduate education is not without challenges with respect to diversity, however. More fellowships and tuition waivers to recruit and retain graduate students from all backgrounds are needed, as is greater geographical mobility. The knowledge-based, global economy has made graduate education as necessary today as a college education became after World War II. Many professions previously requiring bachelors, masters and doctoral degrees now demand masters, doctoral and post-doctoral-level training, respectively. The number of active professionals desiring to obtain graduate degrees is growing, and there is increasing demand for flexible graduate programs accessible to the sites at which these people work. Thus, graduate education is becoming life-long education. Providing graduate education opportunities to a larger percentage of the population, at more locations, will be crucial in the years to come. Having access to graduate education near their places of residence is important for all segments of the population, but most particularly for minorities, who, for economic and cultural reasons, often find it unusually difficult to leave their families and neighborhoods in order to obtain graduate degrees.

While efforts to recruit minorities to existing graduate programs, such as the University of Michigan's partnership with minority-serving institutions or the federally-funded Grad Portal, McNair and AGEP programs, should continue, universities also must find a way to make graduate education available to minorities and other underserved populations near the communities where they live. Whereas distance learning programs, like those offered by Michigan State University, may be appropriate in some cases, partnerships between research universities and teaching institutions located close to the target graduate student populations might be required in others. Finally, it may become necessary to establish new research universities, either by adding graduate programs to existing undergraduate schools or by creating new institutions. The University of California provides examples of these approaches with its new campus at Merced, in the heart of the very diverse San Joaquin Valley, as well as with its plans to expand joint doctoral programs with California State University, whose campuses located in every corner of the state are eminently accessible to diverse populations.

In addition to bringing minorities to graduate programs and vice versa, universities need to improve the quality of the graduate experience by strengthening its international components. Institutions must make a special effort to send more graduate students abroad, for varying periods of time, to conduct research in their areas of expertise and to broaden their mental horizons by studying other languages and cultures. More travel fellowships for graduate students, such as the Fulbright and Boren fellowships, are needed, as are more graduate student exchanges and programs abroad, like those provided by New York University's Global University programs or the University of Pennsylvania's Global Immersion pro-

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International Student Issues in a Post-September 11th Environment

An Interview with Marlene Johnson, Executive Director of NAFSA: Association of International Educators

What are the major environmental changes since 9/11 that have and will continue to impact our graduate schools?

It cuts both ways. On the negative side, irresponsible statements by Members of Congress and inaccurate coverage by the press have portrayed "foreign students" as a major terrorist threat. September 11 and its political repercussions have put SEVIS on a fast track and have removed any effective constraints on what kind of reporting SEVIS will require, on the complexity of the reporting system, and on how quickly universities will have to implement it. Visa requirements have been tightened for students and scholars from some countries. Presidential Decision Directive (PDD) 2 of October 29, 2001, directs the U.S. government to implement measures to "end the abuse of student visas," to "prohibit certain international students from receiving education and training in sensitive areas," and to screen out "foreign nationals who would use [U.S.] training to harm the United States." These are the "homeland security measures." All of this will affect graduate schools in ways not all of which are entirely clear.

On the positive side--if that is the right word to use in connection with this tragedy--September 11 may make it easier to get increased appropriations for foreign language and area studies programs, exchange programs (especially with the Islamic countries), and study abroad.

How will graduate deans be most affected by the new INS system, SEVIS?

They'll have to be involved in the creation of the SEVIS reporting systems at their institutions. "Reportable events" that pertain to international students and scholars enrolled in their schools will have to be plugged into the information system that the university maintains for complying with the SEVIS requirements. Beyond SEVIS, they'll also have to contend with whatever increased visa scrutiny their graduate students and scholars are subjected to. The big unknown, however, is the effect of the homeland security measures, which could have a major negative impact on graduate education and scientific exchange if the "sensitive areas" mandate is implemented in a way that impacts the ability of scholars and graduate students in scientific fields to access U.S. universities or that seeks to "wall off" part of the university from them while they are here.

What do graduate deans need to communicate to their campus about international student visas and new homeland security measures?

To the admissions office, admit early. Students will need lots of time to pay the SEVIS fee and get the visa. To anyone who relies on international students and scholars to manage enrollment and staff their departments, be prepared for even greater uncertainty and delays in visa decisions. To the government relations office, get in the game on homeland security measures, and make sure government decision makers understand the impact that attempts to control access to sensitive areas could have on graduate education.

What key areas do graduate deans need to be sensitive to regarding international student issues?

It's a new era. The whole international student enterprise is going through a crisis of legitimacy as a result of September 11. At the same time, we have a very strong case that international students are overwhelmingly a net asset for U.S. national security, and that they are part of the solution to terrorism, not part of the problem. All of us, the deans included, need to be sensitive to the necessity of addressing the country's concerns about international students, through compliance with monitoring requirements and other controls, while at the same time vigorously advancing the case that international students are good for education, good for schools, and good for our country.

How will graduate education programs need to change, if at all, once new procedures and security requirements are in place?

It depends. We may know more by the time of the CGS Summer workshop in July, but as I speak in April, we don't know that graduate education programs will have to change at all. One hopes they won't. If our country is able to sort out its security interests, the change will be for the better: more students from the Middle East, more scholarly and scientific exchanges, more foreign language and area studies instruction.

What are your thoughts about the future of international graduate students in the United States in this post-September 11th environment?

I am actually an optimist. International education is so self-evidently in the U.S. national interest that I am confident that, at the end of the day, the international graduate student enterprise will be alive, well and thriving. It may take us awhile to get there, but no other outcome is thinkable. ❖

Marlene Johnson will be speaking at the CGS Summer Workshop on "National Security and Graduate Education: Balancing Competing Claims." Johnson is executive director and chief executive officer of NAFSA: Association of International Educators, the world's largest membership organization of professionals in the field of international educational exchange. U.S. colleges and universities count on NAFSA in their efforts to internationalize the campus and promote international educational mobility at the undergraduate, graduate and faculty levels.

Johnson currently sits on the executive committee of the Alliance for International Educational and Cultural Exchange. She is also a member of the American Council on Education's Commission on International Education, and for the past two years has participated in the Universities Project of the Salzburg Seminar. The Project is a forum that brings senior representatives of higher education together to focus on higher education reform in Central and Eastern Europe.

To speak with Marlene Johnson, or to arrange an interview, please contact Jill Erbland at 202-737-3699, ext. 208.

Robert Sowell Named 2002 Dean in Residence

In July 2002, Robert S. Sowell, Dean of the Graduate School and Professor of Biological and Agricultural Engineering at North Carolina State University, will join CGS as Dean in Residence. While at CGS, he will work with the staff on a number of projects, including GradInform. In addition, Dean Sowell shares that he is "particularly interested in studying graduate student retention and time to degree. I'm also interested in the organization of graduate schools, and would like to look at the functions and staffing of various graduate schools."

Sowell has served twice as Acting Associate Provost and Dean of the Graduate School. During his tenure in the Graduate School he has been instrumental in the development and implementation of the Graduate Student Support Plan, which provides tuition and health insurance to qualified graduate students.

Prior to his appointment in the Graduate School he was Interim Head of the Department of Biological and Agricultural Engineering. For several years he was also Director of Graduate Programs in the Department. He has served as a member and chair of the University Courses and Curriculum Committee and the University Council on Undergraduate Education at NC State. He was a member of Southern Association of Experiment Station Directors' Southern Research Development Committee on Computer Software and the Agricultural Systems Course Development Task Group of the National Agriculture and Natural Resources Curriculum Project.

Before joining the faculty at NC State, he was an active duty officer with the United States Air Force where he was an Operations Research Analyst with the Military Airlift Command Headquarters at Scott AFB, IL. He continued his affiliation with the Air Force as a Reserve Intelligence Officer, retiring at the rank of Colonel.

Sowell earned a bachelor's degree from Mississippi State University, a master's degree from Kansas State University and a doctorate from North Carolina State University. He is a member of The Society for Engineering in Agricultural, Food and Biological Systems (ASAE), Phi Kappa Phi, Alpha Epsilon, Sigma Xi, Gamma Sigma Delta, and Alpha Zeta. He is President of the NC State Chapter of Phi Kappa Phi, the NC State Chapter of Gamma Sigma Delta, and the NC Section of ASAE. His awards include the U.S. Air Force Commendation Medal and the U.S. Air Force Meritorious Service Medal. The following publications highlight some of his research interests:

> E. Brown, R. Fathi, R. Sowell. (1996) Linear Programming applied to a facility location problem. Applied Engineering in Agriculture 12(1) 105-110.
>
> Donahue, D.W., R. S. Sowell, N. M. Bengston (1996) Simulation of alternative marketing systems. Agricultural Systems 51(4):395-406.
>
> Robert S. Sowell and R. C. Ward. (1998) Modeling processes and operations with linear programming. Chapter 4, pp113-156 in Agricultural Systems Modeling and Simulation, Edited by Robert M. Peart and R. Bruce Curry. Marcel Dekker, Inc.

He and his wife, Suester, reside in Raleigh and they have two daughters, a son, and three grandchildren.

Look for information on nominations and application processes for the 2003 Dean-in-Residence Program in future issues of the *Communicator*. Information about the Dean-in-Residence Program is also available on the CGS website.

Federal Relations Update

INS: Visa Status Change Required Before Foreigners Can Attend Classes

In the April 8-12, 2002, issue of the American Council on Education's *President to President*, ACE President David Ward shared the following:

"The INS announced this week a change in policy that will require foreign visitors holding tourist visas to apply for and receive a change of status to student visa before enrolling in postsecondary courses of study.

"At present, foreign citizens already in the U.S. who wish to obtain a student visa can simply apply and may begin to take classes once the application has been submitted. Under the new policy, these individuals must await receipt of a student visa before enrolling.

"In addition, under the new regulations, non-immigrants admitted to the U.S. as visitors or tourists would be prohibited from changing to student status unless they declare their intention to study at the time that they enter the country. Visitors who fail to identify themselves as intending students would be required to leave the country and reapply for a student visa.

"These are straightforward and desirable changes and we support them. They are not the only ones we will see-at least three more packages of INS regulations are expected later this year."

Senate Approves Legislation for New Background Checks on Student-Visa Applicants

The U.S. Senate unanimously approved legislation that calls for new background checks on student-visa applicants from countries that the State Department considers to be sponsors of terrorism. The measure also would require colleges and federal officials to more closely monitor the movement of foreign students in the United States. Visit chronicle.com for more information.

CGS Website Update

The ***Virtual Center for Research*** section on the CGS website

www.cgsnet.org/VirtualCenterResearch/datalinks.htm

has an updated Datalinks section.

Check out the newest listings for research studies, reports and essential graduate education links!

Position Notices

The Office of Graduate Studies and Research (OGSR) at the **University of California, San Diego,** has an opening for Director of Graduate Student Financial Support. Details are available at joblink.ucsd.edu, reference job #27110 under the Administrative Professional section.

The **National Science Foundation (NSF)** is seeking qualified candidates for the position of Program Director in the Division of Graduate Education (DGE), Directorate for Education and Human Resources. This is an excellent opportunity for someone in the evaluation field to get some excellent experience at the federal programs level and also could represent a research opportunity for such an individual. Please pass along this announcement to deans (e.g. Education) and department chairs (e.g. Sociology). For details, visit www.nsf.gov/pubs/2002/e20020100/e20020100ipa.pdf.

Upcoming Meeting

The National Association of Graduate Admissions Professionals (NAGAP) announces its 8th annual Professional Development Workshop for New Graduate Admissions Professionals, July 11-12, 2002, at the Flamingo Las Vegas, Las Vegas, Nevada. Session topics include marketing, recruiting, legal issues, technology in admissions and survival tips. For further information, contact Ellen Driscoll at Suffolk University 617-573-8302, edriscol@suffolk.edu or the NAGAP website www.nagap.org.

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The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

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Items of Interest

On April 4, 2002, the **Educational Testing Service (ETS)** announced that it will reorganize and refocus its international computer-based testing (CBT) operations to increase efficiency and improve access through multiple ways of testing. For a copy of the press release, visit www.ets.org/news/02040301.html. In addition, As follow up to the press release, additional information on the international testing center reorganization is available at www.ets.org/news/02040303.html.

The Association of American Colleges and Universities (AAC&U) has recently published three Occasional Papers on the **Preparing Future Faculty Program** entitled:

- *What Colleges and Universities Want in New Faculty* by Kathrynn A. Adams
- *Engaged Graduate Education: Seeing with New Eyes* by James L. Applegate
- *The Preparing Future Faculty Program: What Difference Does it Make?* by A. Leigh DeNeef

To obtain copies, please contact Tracie Fellers, PFF Program Manager at CGS, via e-mail at tfellers@cgs.nche.edu.

The **American Chemical Society** has just debuted its first newsletter on Graduate Education. The inaugural issue includes an article by CGS's Director of External Grants Programs, Les Sims, entitled "Preparing Future Chemistry Faculty." To obtain a copy or more information, please contact the Office of Graduate Education at the American Chemical Society at 202-872-4588 or e-mail GradEd@acs.org.

The April 8, 2002, issue of the **Hispanic Outlook in Higher Education** focuses on Preparing for Graduate School. For more information, contact their website at www.HispanicOutlook.com.

The **Re-envisioning the Ph.D. program** has recently updated their "Ph.D. Career Resources" website into two divisions: "Obtaining a Ph.D." and "Obtaining Employment." They are linked off of the main homepage: www.grad.washington.edu/envision under "Ph.D. Resources" www.grad.washington.edu/envision/phd/index.html. This is one of the most comprehensive collections of doctoral student resources currently available on-line. Our goal is to get the information on these sites into the hands of doctoral students in order to help them not just survive but thrive in graduate school and beyond.

The **University Continuing Education Association (UCEA)** has just released a publication entitled, "Improving the Fit: How to Use Assessment Data to Connect University Curricula to Workforce Needs." Copies may be ordered by contacting UCEA at: postmaster@nucea.edu, 202-659-3130, 202-785-0374 (fax) or visiting their website at www.nucea.edu.

Send your comments, suggestions or ideas about the CGS *Communicator* to Marta Perez Drake at mdrake@cgs.nche.edu or 202-223-3791.

The Origin and Evolution of the Genetic Code

Comments from the 2001 CGS/UMI Award Winner in Biology and Life Sciences, Robin Douglas Knight

Evolutionary questions about the deep past are difficult to answer, because modern evidence about patterns often contains little direct information about process. My thesis examined the evolution of the standard genetic code found in most organisms, and also the changes that led to the slightly different genetic codes found in a few species and in certain cellular compartments such as mitochondria. All of these changes happened hundreds of millions of years ago in ancestors that are all long dead. This put me in an awkward position, somewhat like the Prince of Norway and the English ambassadors arriving at the end of Hamlet. However, they had the advantage of at least finding the bodies still warm.

The genetic code can be thought of as a relationship between particular codons ('words' of three nucleotides in the genome) and amino acids ('ideograms' in the proteins: like a translation from English to Chinese, the translated text has fewer characters than the original). Thus it refers to a coding system analogous to, for example, Morse code, rather than to a particular message transmitted in that code. The genetic code changes when a particular type of DNA word starts being translated into a different protein letter. For example, in some animal mitochondria, the codon AAA is always translated into asparagine instead of lysine. Francis Crick, one of the co-discoverers of the structure of DNA, argued in 1968 that because this type of change affects every protein it would be lethal, and so should change seldom or never. Thus, the code would be unable to evolve, and would be fixed at the first primitive state that happened to be useful. Instead of being adaptations, the pattern of codon assignments would be a 'frozen accident.'

Although the Frozen Accident model worked well for the evidence available in 1968, we now know that the code can and has changed in a variety of lineages. I wondered whether the pattern of these genetic code variants could illuminate the process by which genetic codes had diversified since the last common ancestor of modern life, and whether this pattern was relevant to the early evolution of the genetic code. Additionally, advances in biochemical techniques make it possible to ask questions about properties that can be found in random pools of nucleic acids. Is it possible that some features of the genetic code arise automatically from chemical interactions between the building blocks of life?

Thus I had three major lines of evidence available. The first was the pattern of codon assignments itself: how does it differ from random patterns, and what inferences about translation mechanisms can be inferred from the observed changes? The second was the set of hundreds of complete mitochondrial genome sequences, which allowed me to ask questions about factors that might lead to the evolution of variant codes. The third was the data from in vitro selection, which finds the ways in which random sequences of RNA can most easily evolve to bind a molecular target.

My main conclusion is that different processes probably acted on the genetic code at different times, together shaping modern codon assignments. The earliest codes were probably influenced by direct chemical interactions. Remarkably, RNA molecules that bind amino acids tend to have more than the expected number of codons for that amino acid at their binding sites, suggesting that some of these ancient codon assignments survive to the present. All modern genetic codes are more resistant to genetic errors than a random genetic code would be, suggesting that selection for robustness accounts for some patterns in codon assignments. Some codon reassignments have happened far more frequently than others (for instance, UGA has changed from a stop codon to encoding tryptophan at least half a dozen times independently), suggesting that the components of the translation apparatus can change more easily in certain ways. Specifically, the data support the idea that the genetic code changes by way of intermediates in which some codons are translated ambiguously. Finally, comparative analysis of genomes suggests that, although the relationship between genome size and composition and the genetic code is weak at best, biases in mutation play a huge role in influencing the types of message encoded.

I would like to thank UMI and the Council of Graduate Schools for recognizing my thesis with this award. When I started working on this topic I was somewhat concerned that it would be too speculative to allow useful conclusions, but advances in technology (especially in bioinformatics) are now making questions about even distant evolutionary events tractable for the first time. It's an exciting time to be a biologist: there's so much opportunity to make sense of the vast influx of data from genome projects that even risky ideas can work out. I'd also like to thank Steve Freeland, a postdoc with whom I worked closely while in Laura Landweber's lab at Princeton. Steve's work on the adaptive aspects of the genetic code finally convinced me that chemistry couldn't explain everything about it, and the interplay between our different perspectives led to an incredibly productive collaboration. Finally, I'd like to thank the many excellent teachers who have helped me along the way. While I learned a lot from my professors in graduate school and in college, I'd also like to thank my elementary and high school teachers: although fostering an early interest in knowledge and reasoning is critical to later success in science, such efforts unfortunately tend to go unacknowledged.

I am now in Mike Yarus' lab at the University of Colorado, working on a variety of topics in computational biology. My main focus is on RNA structure, trying to infer the structure of families of RNA molecules from their sequences alone, and testing how many random RNA molecules would be required to start a primitive metabolism. I'm also collaborating with other labs on topics ranging from the distribution of sequence information in different environments to molecular evolution of genomes to new ways of interpreting proteomics data. Everyone's experience in graduate school is different, but there are three pieces of advice that I think are widely applicable. First, if your project depends on a rapidly advancing technology, don't be afraid to take risks: it's more important to think about what you can do in your final year than what you can do right now. Second, it's great to have an advisor who gives you the freedom to explore a wide range of ideas: I was lucky in this respect. Finally, don't be afraid to ask researchers at other institutions for help and advice. I found that people even in 'competitive' labs were unfailingly generous with their materials, their protocols, and, most importantly, their valuable time. ◆

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Diversity Debate

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grams. The importance of giving graduate students an international experience cannot be overestimated.

It is also necessary to continue to recruit graduate students from other countries. International graduate students greatly enrich academic life with their culturally-diverse perspectives. In addition, approximately half of all international graduate students end up staying in this country and making significant contributions here after graduation. Given that their countries of origin have footed the bill for their education prior to graduate school, this constitutes a high-return investment for the United States, which gets a considerable infusion of talent at a relatively modest cost. Furthermore, those international graduate students who go back to their countries of origin and become leaders there after graduation also contribute to this country's well-being by fostering partnerships of various kinds with the United States. The benefits of having a robust international graduate student body have not been lost on other countries, such as the United Kingdom or Germany, which are building up their educational systems in order to attract more international graduate students. This country must also make a concerted effort to maintain and enhance its share of the international talent market. Post-September 11 political conditions have the potential to harm international graduate recruitment precisely when it is most needed. While security considerations are important, potential risks to the economy must be carefully considered when establishing restrictive visa regulations.

Universities must strive to produce the kind of expertise society needs and should receive proper recognition and encouragement for their efforts to recruit and integrate both minority and international graduate students into academic life. The Peterson's Award for Innovation in Promoting an Inclusive Graduate Community has a very important role to play in this respect and should widely be made known for both its real and emblematic values. In addition, universities must respond to society's demands by creating more graduate certificates and professional graduate degrees, as well as by reorienting traditional degrees along the lines proposed by programs such as the IGERT, which emphasizes interdisciplinary studies, or the Carnegie Initiative on the Doctorate, the Responsive Ph.D. and the Re-Envisioning the Ph.D. projects, which focus on new educational practices. Universities must offer better mentoring and a wide variety of professional development activities giving graduate students the skills they need to function in a diverse workplace, such as graduate internships in non-academic, as well as academic, settings or the Preparing Future Faculty Program. Institutions of higher learning must keep their eyes on the prize, which is to build a reservoir of leadership, a commonwealth of talent. Both minority and international graduate students make distinct contributions to the university and to society and are crucial to building a truly competitive economy and inclusive community, the benefits of which will enhance the material and spiritual lives of newcomers and long-time residents, minorities and non-minorities alike.[9] ❖

Notes

[1] Deborah Van Opstal, "The Skills Imperative: Talent and U.S. Competitiveness," Issues in Science and Technology, XVIII, 1 (Fall 2001), pp. 51-58.

[2] Harry J. Pearce, Statement, General Motors Press Release, July 17, 2000.

[3] James Hackett, Statement, Fortune 500 Press Release, October 16, 2000.

[4] José Ortega y Gasset, Mission of the University (New Brunswick, New Jersey: Transaction Publishers, 1997).

[5] Clark Kerr, The Uses of the University (Cambridge, Massachusetts: Harvard University Press, 1996).

[6] Anna Lee Saxenian, "Brain Circulation: How High Skill Immigration Makes Everyone Better Off," Brookings Review, 20, 1 (Winter 2002), pp. 28-31.

[7] Frank H.T. Rhodes, "College by the Numbers," The New York Times, December 24, 1999.

[8] John Henry Newman, The Idea of a University (New Haven: Yale University Press, 1996).

[9] I thank my colleagues from the University of California, Davis, Professors Patricia Gándara and Debbie Niemeier, for reading earlier versions of the manuscript. This article has greatly benefited from their critical comments.

Cristina González will speak on ***Enhancing Diversity Presence: What Works*** at the CGS Summer Workshop for Graduate Deans this July in Portland, Oregon.

McNair Memo

Opportunities to Recruit McNair Scholars: McNair Scholars Student Conferences

McNair Scholars student conferences provide a great opportunity for graduate schools to recruit McNair Scholars and distribute information about graduate programs. Several of these national conferences are scheduled for the summer and fall of 2002 and include graduate school exhibitors. These conferences provide a vehicle for students to present the results of their undergraduate research, an important component of the McNair program graduate preparation activities. Graduate school representatives can exhibit, listen to student presentations and poster sessions and establish relationships with McNair project directors.

In addition to the summer and fall schedule, conferences are held at the University of Maryland in March, and Colorado State in April, and a regional Texas conference is held annually in February. For more information about attending and/or participating in the conference graduate fairs, contact names are listed.

Penn State University
August 2-4, 2002, at the Penn State Conference Center
University Park, Pennsylvania
400 participants/staff expected
contact: Teresa Tasotti at 814-863-8195 or
Curtis Price at 814-863-4289

University of Tennessee, Knoxville
July 11-14, 2002, at the Hyatt Regency Hotel
Knoxville, Tennessee
350 participants/staff expected
contact: Celeste Brooks at 865-974-7900

University of Illinois and
Mid-America Association of Educational Opportunity Program Personnel
November 1-3, 2002, at the Lake Lawn Resort
Delavan, Wisconsin
600 participants/staff expected
contact: Priscilla Fortier at 217-333-0054

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Nominations are being accepted for membership on the CGS Board of Directors. If you are interested or if you would like to nominate a colleague, please contact:

Orlando Taylor, Chair of the
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Communicator

Volume XXXV, Number 5 *June 2002*

Research Ethics Education: Setting the Bar

by Mark S. Frankel, Director, Scientific Freedom, Responsibility and Law Program
American Association for the Advancement of Science

In the aftermath of several high-profile incidents of research misconduct during the last two decades, ranging from plagiarism in the humanities[1] to the wholesale fabrication of data in the sciences,[2] the government adopted a series of policies requiring research institutions that receive federal research funds to establish mechanisms for responding to allegations of misconduct in research. The latest occurred in 2000, when the U.S. Office of Science and Technology Policy issued a federal government-wide policy applying to all agencies that fund research.[3] Institutions have responded by putting procedures in place that implement the federal policy. Such policies and procedures, of course, come into play after the fact, when the egregious behavior has already taken its toll. Moreover, they bring with them unwelcome baggage in the form of administrative and financial burdens on institutions. Although one should not underestimate the power of the law to influence behavior, relying on regulations to promote responsible conduct in research will never be sufficient without complementary educational efforts.

It should be obvious that integrity in research is of great importance to the public, to individual researchers and their institutions, and to the health of the research enterprise. The increasing social importance of research has led to greater demands for accountability on the part of researchers and their institutions for the use of public funds. When researchers engage in falsification of data or fabrication of findings, they waste finite resources and can mislead others into taking inappropriate, and possibly harmful, actions based on the flawed work. Scholars rely on the honesty and competency of their colleagues, and society's confidence in and support for research rests on public trust in the integrity of researchers and their institutions. It is incumbent upon the research community to maintain the quality and integrity of research. It is not a responsibility that it should cede to the government.

A report last year by the Institute of Medicine observed that educating researchers about the ethical conduct of research was the approach "most likely to have the desired results with the least level of intrusion and the greatest direct impact on overall norms."[4] This reflects what I believe to be an increasing recognition within both academe and the government that education in research ethics must be given high priority in efforts to promote the responsible conduct of research. As the poet T. S. Eliot cautioned in a very different context, we cannot "escape from the darkness outside and within by dreaming of systems so perfect that no one will need to be good." Rules and procedures will only go so far; we want people to act properly because it is the right thing to do, not because the law requires it.

Educating for Competence and Ethics

No one would question the importance of education that transmits the knowledge and skills necessary to produce sound scholarship. Why should we require anything less in order to produce ethically conducted research? Education should stress that rigorous research and high ethical standards are the norm. Ethics and competence are equally important; both are essential to the education of those planning careers in research.

Yet, past experience indicates that it would be a mistake to assume that all, or even most, graduate students, post-docs, and technicians engage in research fully aware of the norms of accepted practices in their disciplines or of the policies and regulations that govern the conduct of research. But even if they were, situations will arise during the conduct of research for which the application of those norms or regulations will not be straightforward; one will need to develop the skills for identifying and assessing those cases.

For many in the research community, the original impetus for developing education in research ethics came from the federal government, which in a series of actions since the late 1980s has mandated or recommended educational initiatives. Most recently, the National Institutes of Health required education in the protection of human research subjects for all its grantees.[5] And at the end of the same year, the U.S. Office of Research Integrity (ORI) issued a new Public Health Service "Policy on Instruction in the Responsible Conduct of Research",[6] which recommended nine core areas of instruction, including: (1) data acquisition, management, sharing and ownership; (2) mentor/trainee responsibilities; (3) publication practices and responsible authorship; (4) peer review; (5) collaborative science; (6) human subjects; (7) research involving animals; (8) research misconduct; and (9) conflict of interest and commitment. The policy was suspended in response to concerns about its scope and the procedures used for promulgating it. ORI intends to recommend to

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Research Ethics Education

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the Department of Health and Human Services that a revised proposed policy be issued before the end of this year.

Although individual researchers must bear ultimate responsibility for their actions, there is clearly a role for institutions to play in setting the moral tone and ethical climate in which research is conducted, whether driven by federal mandate or not. Research institutions have embraced this role through a variety of educational initiatives. In doing so, it is important to articulate the goals to be achieved and the intended audience.

Goals for research ethics instruction should include the following:

- Enhance understanding of what constitutes the range of accepted practices in research. To some extent, these practices will vary according to the norms of the research discipline;
- Heighten sensitivity to and appreciation for the ethical issues associated with doing research;
- Improve abilities for resolving ethical dilemmas;
- Increase knowledge about the laws, regulations and policies--government and institutional--and professional guidelines that govern the conduct of research.

There should be a plan in place for assessing the extent to which instruction achieves these goals. This poses one of the more difficult challenges. We are far from clear about the effects of this type of education on researcher behavior. There is much work to done in developing measures and criteria for evaluating the impact of such efforts. Both the government and research institutions should direct more resources into this aspect of education in the responsible conduct of research.

Most existing educational programs in research ethics are aimed at all or a part of the following: faculty; graduate or undergraduate students; support staff (e.g., technicians); post-doctoral students; and IRB or IACUC members. Whoever the audience is will depend in large part on the goals of the instruction, the financial and human resources available at the institution, and the scope of any government mandate. The proposed ORI policy cited above was intended to apply to "all research staff…who have direct and substantive involvement in proposing, performing, reviewing, or reporting research, or who receive research training" if working on projects funded by the Public Health Service.

Compliance or Conscience?

One of the critical issues for any institution in designing an educational program in responsible research conduct is whether merely to stress compliance with federal mandates or to go beyond. Institutions must decide early on how broad an educational experience they want to provide to researchers and students. If the goal is knowledge of and compliance with government or institutional rules, then educational programs will stress "facts." The emphasis will be on ensuring the researchers know what is required of them.

My personal view, however, is that while compliance is important, it is below the standard to which research institutions ought to strive. Compliance typically emphasizes the lowest common denominator, reducing complex issues to rules and procedures rather than prompting a deep understanding of the complexities involved and encouraging creative approaches to the issues. When it comes to conducting research in an ethical manner, whether it involves protecting human research subjects or protecting the research record, we should expect more from researchers than simply comply-

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Interested in Learning More About Research Integrity Issues?

Be sure to register for the Research Integrity Workshop, lead by Dr. Mark Frankel, at the CGS Annual Meeting this December. The pre-meeting workshop will be held on Wednesday, December 4, 2002, in Washington, D.C. Details will be available this July in CGS Annual Meeting registration materials, and please feel free to contact Marta Perez Drake at mdrake@ cgs.nche.edu for information.

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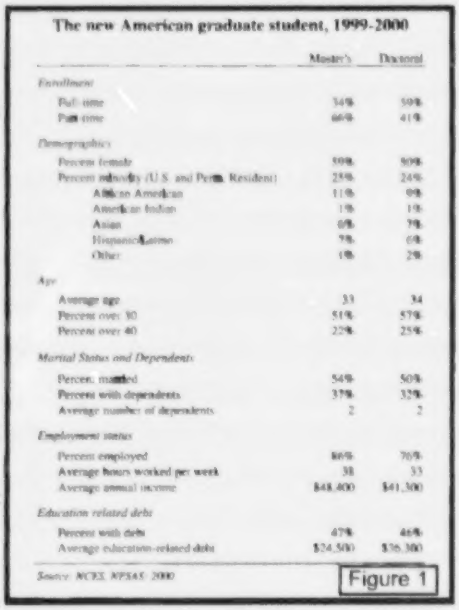
Data Sources:

The New American Graduate Student, Part II

Since 1993, more diversity, but more debt

by Peter D. Syverson, Vice President for Research and Information Services

In 1996 we published a Data Sources column titled "The New American Graduate Student." The column described a special analysis of the results of the 1993 NCES National Postsecondary Student Aid Study that yielded a profile of contemporary master's and doctoral students. That profile documented for the first time the sea change underway in graduate education--from a population of traditional graduate students moving from the bachelors' degree directly to graduate education, to a population dominated by older, returning students. Not only was age a key variable, but so was gender, employment status, marital status, number of dependents, and student loan debt.


The new American graduate student, 1999-2000

	Master's	Doctoral
Enrollment		
Full-time	34%	59%
Part-time	66%	41%
Demographics		
Percent female	59%	50%
Percent minority (U.S. and Perm. Resident)	25%	24%
African American	11%	9%
American Indian	1%	1%
Asian	6%	7%
Hispanic/Latino	7%	6%
Other	1%	2%
Age		
Average age	33	34
Percent over 30	51%	57%
Percent over 40	22%	25%
Marital Status and Dependents		
Percent married	54%	50%
Percent with dependents	37%	32%
Average number of dependents	2	2
Employment status		
Percent employed	86%	76%
Average hours worked per week	38	33
Average annual income	$48,400	$41,300
Education related debt		
Percent with debt	47%	46%
Average education-related debt	$24,500	$36,300

Source: NCES, NPSAS: 2000

Figure 1

The article concluded with the statement that the new American graduate student was a women in her 30s pursuing a master's degree on a part-time basis, with a full-time job and typically married, often with responsibility for children and likely to have some education-related debt.

Due to the efforts of the NPSAS survey team; the latest survey contained an enhanced sample of graduate students, which allows for more detailed analysis of the database. Accordingly, we are now able to update the New American article with data derived from NPSAS 1999-2000 and describe the current demographics of today's graduate student and consider the changes that have taken place since 1993.[1]

Presented in Figure 1 is a series of data describing the demographic and economic characteristics of graduate students enrolled in 1999-2000. One of the most useful attributes of NPSAS is that it separates graduate students by level of degree--master's or doctorate. This degree designation is based on institutional records, where available, and on a telephone interview in the absence of institutional records. Overall, approximately 70% of all graduate students report pursuing the master's degree, with 30% enrolled in doctoral programs.

According to 1999-2000 NPSAS, two-thirds of master's students participate in graduate education on a part-time basis while 59% of doctoral students are in full-time programs. These results are quite similar to the figures for 1993 and indicate that the increase in the growth in part-time relative to full-time enrollment has stabilized. In contrast, there has been a marked increase in the percentage of women graduate students, especially in doctoral programs. The 1993 NPSAS reported that 38% of doctoral students were women, in 2000 that figure had risen to 50%.[2]

Along with women, the percentage of minority-group members has risen substantially since 1993. While in 1993, 14% of master's students and 17% of doctoral students were members of U.S. minority groups; the figures for 1999-2000 were 25% and 24%, respectively. At the master's level, the percentage representation of African American and Hispanics nearly doubled, while Asians increased from 4% to 6%. The percentage of Hispanic doctoral students doubled, while the percentage of African Americans grew as well, from 7% to 9%.

There was little change in the age figures for graduate students since 1993, but that is not surprising considering that populations in general tend to age fairly slowly. As in 1993, the average age of both master's and doctoral students was 33, with more than one-half over the age of 30. The remarkable finding is that more than 30% of both master's and doctoral students are over the age of 40. As shown in Figure 2, the largest concentration of master's and doctoral students is in the 25-to-29 age category. Although the age profile decreases rapidly after age 29, there is a plateau in the 40s and then a decrease thereafter. The proportion of doctoral students over the age of 50 is higher than that for master's degree students, presumably the result of doctoral students who are working adults in programs with long times-to-degree, such as education.

Most graduate students are married, and about one-quarter have dependents other than their spouses. The average number of dependents is two for both master's and doctoral students. Graduate students with dependents tend to be women, and they are older than graduate students without dependents.

The NPSAS employment figures include both on- and off-campus jobs and RA and TA appointments. This may account for the finding that three quarters of all doctoral students report being employed. In fact, about one-half of doctoral students report working on campus, in contrast to the 20% of master's students with jobs on campus. As expected, nearly all master's students are employed, and they earn an average income of more than $48,000. Doctoral students report working slightly fewer hours per week with an average annual income of $41,000.[3]

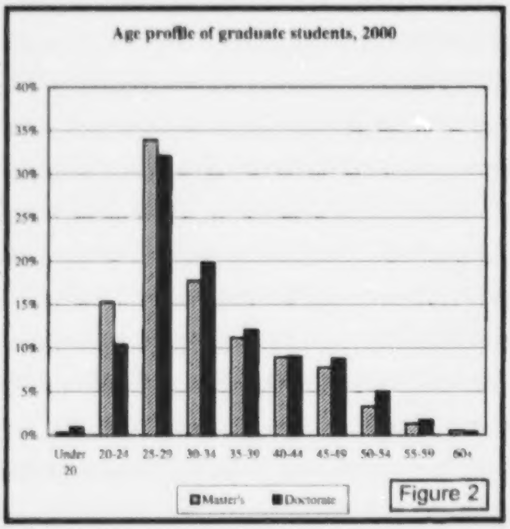

Age profile of graduate students, 2000

Figure 2

Nearly one-half of master's and doctoral students enrolled in 2000 reported having education-related debt from any source--federal, state, or private. The average education-related debt is $24,500 for master's students and $36,300 for doctoral students. While the percentages of students with debt are quite similar in 1993 and 2000, the amount of debt in 2000 is considerable higher. In 1993, the average amount of debt was $10,200 for

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Dr. Joan F. Lorden Named CGS/NSF Dean in Residence for 2002-2003

The Council of Graduate Schools (CGS), in collaboration with the National Science Foundation (NSF), announces the appointment of the 2002-2003 CGS/NSF Dean in Residence, Joan F. Lorden.

Dr. Lorden is Associate Provost for Research and Dean of the Graduate School at the University of Alabama at Birmingham. Lorden has served the University of Alabama at Birmingham (UAB) since 1976. A professor for many years, Lorden later was the Director of the Behavioral Neuroscience Program (1980-94), Co-Director of Undergraduate Studies for the Department of Psychology (1990-94), Chair of the Committee on Graduate Study in Neuroscience (1988-92), and UAB Faculty Representative for the Board of Trustees of the University of Alabama (1993-94). Lorden has been Dean of the Graduate School at UAB since 1994 and Associate Provost for Research since 1995.

Dean Lorden's service on review boards and advisory boards is extensive--including the NIH Biopsychology Study Section (1990-94), the Advisory Panel for the Biological Basis of Behavior Program at NSF (1986-89), they Dystonia Medical Research Foundation Scientific Advisory Board (1993-97), the Mississippi-Alabama Sea Grant Board of Directors since 1995, and the Alabama EPSCoR Steering Committee since 1996. In 1991, Lorden was honored for her research with the Ireland Award for Scholarly Distinction. She is a member of several professional societies and has been the recipient of numerous grants from the Department of Education, NIH, NSF, and private foundations. Lorden holds degrees from The City College of New York and Yale University, and is the author of many publications. "Joan Lorden is a local, regional and national leader in graduate education," says Dr. Debra W. Stewart, CGS President. "Her extraordinary record of achievement in graduate education will bring valuable insight, perspective, and practical experience to the CGS/NSF Dean-in-Residence program. We are delighted to welcome Dean Lorden to this exciting leadership position."

> *"NSF has been forward thinking in creating programs to respond to changes in the way science is done and the need for our graduate programs to keep pace in the way we educate our students. It will be a real privilege to take part in this ongoing discussion."*
>
> *-- Joan Lorden, newly appointed CGS/NSF Dean in Residence for 2002-03*

The CGS/NSF Dean-in-Residence Program was created to provide a new mechanism for ongoing and substantive communications between senior administrators at our universities providing graduate education and the NSF, a major funder of graduate support programs. The program is a distinct opportunity for an outstanding graduate dean to bring to the NSF insights, perspectives, and the practical experience of a senior administrator at a research university. In turn, the dean will communicate with graduate deans, as well as broader science and engineering faculty, NSF's perspective on graduate education. James H. Lightbourne, Acting Director of the Division of Graduate Education at the National Science Foundation, shares that the "CGS/NSF Dean-in-Residence program is proving immensely effective to NSF in serving the graduate community. NSF is very appreciative to CGS for making this program possible. Dr. Carol Lynch has been excellent during her rotation, and we are very fortunate that Dr. Lorden now will be joining us. Dr. Lorden has an impressive career as a scientist, faculty member, university administrator and graduate dean. She brings to the position this vast experience, as well as her experience as a leader in graduate education at the national level."

Carol B. Lynch, the current CGS/NSF Dean in Residence, "could hope for no better successor!" She continues, "it is with tremendous confidence that I will hand over the position of CGS/NSF Dean in Residence to Joan Lorden. Joan has exhibited exceptionally strong and broad leadership in graduate education and research, and commands the respect and admiration of her peers. Her continuing national role in discussions about the ranking of graduate programs will be a valuable attribute in her position here in Washington."

Dean Lorden will serve as the CGS/NSF Dean in Residence for one year, beginning in August 2002. She is "delighted to have an opportunity to work closely with both CGS and NSF on issues in graduate education. Carol Lynch did a wonderful job kicking this program off last year and I hope I will be able to build on her progress. Graduate education in the U.S. over the last century has been a tremendous success story and one from which the nation has benefited greatly. In addition to celebrating our success, many in graduate education have also come to the realization that the environment in which we operate has changed. The demographic characteristics of our students are different than it was a generation ago and so is the employment outlook of our graduates. This has prompted studies by students and educators alike with many suggestions for change. NSF has been forward thinking in creating programs to respond to changes in the way science is done and the need for our graduate programs to keep pace in the way we educate our students. It will be a real privilege to take part in this ongoing discussion. One of my hopes for the CGS/NSF Dean-in-Residence program is that it will raise the visibility of issues in graduate education throughout the scientific community and lead to meaningful change that sustains the vitality of the enterprise."

For more information on the CGS/NSF Dean-in-Residence program, visit the CGS website at www.cgsnet.org. ✧

New Deans and Titles

Kweku K. Bentil will be Dean of the School of Graduate Studies at Indiana State University starting July 1, 2002. Bentil was the Graduate Dean at Southern University and A&M College in Louisiana.

Philip H. Dreyer is Provost and Vice President for Academic Affairs, at Claremont Graduate University.

Ann Weaver Hart has been recently named the 18th President of the University of New Hampshire, succeeding Joan Leitzel. Hart will leave her position as Provost and Vice President for Academic Affairs at Claremont Graduate University in California.

Thomas L. Reynolds is Interim Associate Provost for Graduate Programs and Dean of the Graduate School at the University of North Carolina at Charlotte.

Member News

CGS would like to announce its new member...

Capella University

The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

No endorsement by CGS of any product or service named herein may be implied.

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Managing Editor: Robin R. Smith Vice President, Finance and Administration

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Items of Interest

The recently established **Jack Kent Cooke Foundation** announced its first class of Jack Kent Cooke Graduate Scholars on May 1st at the University of Maryland. The 50 scholars, college seniors from the greater Washington, DC area (DC, Virginia and Maryland) can receive up to $50,000 for six years to go to any graduate school, law, or medical school in the field of their choice. For more information please contact Linda Katz at 301-656-7900 or visit www.jackkentcookefoundation.com.

The **National Science Foundation** has released the report, "Graduate Students and Postdoctorates in Science and Engineering - Fall 2000." Visit www.nsf.gov/sbe/srs/stats.htm for more information, or call 703-292-8774 or e-mail srsweb@nsf.gov.

The **Woodrow Wilson International Center for Scholars** announces its 2003-2004 Fellowship competition. The Woodrow Wilson Center annual awards residential fellowships to scholars and practitioners with outstanding proposals in the social sciences and humanities that relate to public policy. Interested scholars may download the fellowship application materials at www.wilsoncenter.org, call 202-691-4170, or e-mail fellowships@wwic.si.edu.

Upcoming Meetings

The **Symposium on Research Responsibility and Undergraduates** is June 19-22, 2002, in New London, Connecticut. This symposium will focus on two key issues: (1) ethical issues of special importance to faculty doing research with undergraduates, and (2) ways to instill ethical/responsible research behavior in undergraduates. For conference information, including the agenda and an on-line registration form, see www.cur.org/conferences.html.

The **12th Annual Conference on Legal Issues in Higher Education** is October 6-8, 2002, in Burlington, Vermont. For more information visit professional.uvm.edu/cgi-bin/pp/LEGAL02.html, call 800-639-3210 or e-mail highered@ced.uvm.edu.

The **Outreach Scholarship 2002 Conference: Catalyst for Change** is October 6-8, 2002, in Worthington, Ohio. For more information visit www.outreachscholarship.org.

Send your comments, suggestions or ideas about the CGS *Communicator* to Marta Perez Drake at mdrake@cgs.nche.edu or 202-223-3791.

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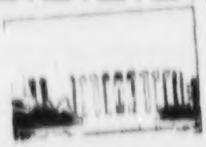

Grass Widows, Barbarians and Bigamists:

Fluid Marriage in Late Nineteenth Century America

Comments from the 2001 CGS/UMI Award Winner in Humanities and Fine Arts, Beverly J. Schwartzberg

The Council of Graduate Schools asked me to comment on my work and the processes of graduate education, particularly the factors that influence a student to do a first-rate dissertation and become a faculty member. I had to laugh when I read that, since I never entered graduate school planning to become a faculty member, and although many graduate students do earn Ph.D.s with that goal in mind, I want to take the opportunity, and this platform, to talk about the rest of us.

I was drawn to the University of California at Santa Barbara because of the program in Public Historical Studies. The program trains historians for careers outside the academy, whether as consultants in issues relating to history and cultural resources, those who work in historical editing such as documentary editions, museum work, archival work, and a whole slew of other careers. In fact, I had been teaching high school history for years, and was curious about the other careers I saw that involved history, and I saw public history as a way to find out more. U.C. Santa Barbara claims one of the founding programs in public history, and it is home to the field's national journal, *The Public Historian*.

So I cannot tell you much about what influences students to become faculty members, but I can remind you that careers for historians outside the academy--careers that you surely know about, because your students have fallen into such careers--are not second choices for many of us, and particularly to remind you that they are not second choices for good students. Fortunately, no one at the University of California stopped awarding me fellowships and prizes when they realized that I was not planning to become a faculty member (although I think I am prepared pretty well for doing that, should I wish to pursue that path). Maybe they just forgot. But I would like to think that they were open-minded.

Outside of standing on my soapbox for public history, and indeed for all "applied" careers in the humanities as well as other fields, I do want to make a few comments--actually three points--about what helped me succeed, and flourish, in graduate school. The first goes something like this: pretty much my favorite word or operating principle is "yes," and my least favorite is "no." I just hate it when people say "no" to me and my ideas. (This does not mean I am never wrong.) I was fortunate enough to work with an advisor, Patricia Cline Cohen, who didn't say "no." She was a great role model for me--although I think that every student and every mentor works from different strengths. But I cannot praise her enough for her genuine interest in research, and her genuine disinterest in what I think of as academic gamesmanship. She is someone who has succeeded because she loves what she does, and is very good at it. I approached my dissertation as a detective story, and she helped me detect. I have to admit that she was a little skeptical at first about the topic--she did not quite believe that marital desertion and irregular remarriage patterns were as pervasive as I believe they were, but she did not say "no," and she allowed me the space to make my case.

So that is point number one: although some students may need firm guidance, others need someone who does not say "no" to them. My advisor certainly nourished my work and provided invaluable guidance in research, writing, and argumentation, but in recognizing my independence she fostered my independence. I have to admit that it probably made a difference that I am an older student, with several past careers under my belt; and that leads me to my second point.

Graduate education should be enjoyable. It was for me, and that was pretty important in helping me along. I am constantly astonished by the stress that I see created by the graduate experience for many people, stress that can be fostered by lack of support--or misguided support--by faculty. What solution you, particularly as graduate deans, find for this situation is up to you--but let me suggest a broader notion, which is that the better prepared students are in their earlier experiences, the more balanced they will be in graduate school. I was prepared for graduate school because college prepared me for it, and I was prepared for college because high school prepared me for it. But I think my experience was somewhat unusual. So the advice I can give you is this: connect with your colleagues at all levels of education. Prepare students to work hard and think in sophisticated, scholarly ways. The worst thing that can happen is that they know too much, and I do not see that as much of a problem. I have made this point to my own students for years: there is no such thing as learning too much. It will prepare you for the next level of thinking.

My third point is this: respect the totality of your students' encounters with the field. To be frank, I did very little of the usual labor--working as a teaching assistant--in graduate school and I did lots of other things to make a living and prepare my career. I worked as a historical and curatorial consultant on museum exhibits; I learned to become a museum grant writer; I found out more than you ever wanted to know about small museum management; I tried working as a freelance historical consultant for a government agency; I worked for a journal. This work has prepared me for a career and has forced me to make good connections within my geographical community and within my professional community. Most of this work I pursued on my own, although being a part of the public history program opened many opportunities for me. But at least no one in the academy ever said "no."

And ultimately these encounters with history outside the academy shaped my dissertation, which garnered me this very nice prize. Basically, I have argued that in the late nineteenth century, individuals remade marriage in a variety of ways. They sometimes deserted their spouses, they sometimes separated by agreement, and they often remarried outside of the legal boundaries of marriage policy-e.g., they were bigamists, at least in legal terms. (They didn't actually disrespect the institution of marriage by doing these things, by the way.) But they often kept these personal stories hidden, particularly to posterity, and uncovering them required some detective work. I was helped in this research less by traditional means and sources than by thinking outside the box, using sources and methods more commonly used by geneaologists, for example. I was persuaded to continue on my search by any number of personal stories relayed in casual conversations with people at parties, in libraries, on the internet, and elsewhere. I tried to hear these stories less as quirky idiosyncrasies than pieces of evidence that fit together in a larger pattern. I might be wrong in my argument, but I am persuaded that my work tells, as I discuss in its introduction, "family secrets that everybody knows."

I am really humbled and gratified by this award, because, as you see, it represents more than just the reward for a scholarly dissertation. To me, it is validation for an approach to my own education, career, and research. And again, I might be wrong in the suggestions I have made about the process of graduate education, but I welcome you to think about my comments today and see whether they, like my dissertation, make any sense at all.

Research Ethics Education

continued from page 2

ing with the bare minimum required. Education should tap into the moral consciences of researchers, fostering open discussion on the values at stake in research and on developing the most appropriate ethical responses. This is a strategy likely to create an environment more conducive to forging a commitment to integrity of the highest order.

Graduate Deans can play a critical role in implementing such a strategy. They are well positioned to set the tone for the ethical conduct of research by sending clear messages of the priority of research ethics on their watch. Deans should provide leadership and adequate resources to the various research units (laboratories, departments, etc.) so that they can develop educational programs in research ethics, and they should encourage some of the most respected faculty who are active researchers to serve as instructors. Recruiting faculty who have achieved recognition for their research accomplishments to participate in such instruction not only provides participants with a strong sense of what it is like to experience ethical dilemmas in the trenches, but also conveys the importance with which the institution regards these issues. Finally, keeping in mind that both competence and ethics are equally essential for a successful career in research, Deans should support policies that evaluate academic personnel and research units with how well they integrate consideration of ethics into their activities. An institutional culture that fosters such policies is in a good position to evoke from its researchers a higher standard of conduct than that embodied in rules. ❖

*For a list of educational resources related to the responsible conduct of research, see www.aaas.org/spp/video/resource.htm.

Notes

1 Marcel C. LaFollette, Stealing Into Print (Berkeley, CA: University of California Press, 1992).

2 William J. Broad and Nicholas Wade, Betrayers of the Truth: Fraud and Deceit in the Halls of Science (New York, NY: Simon & Schuster, 1982).

3 U.S. Office of Science and Technology Policy, "Research Misconduct: A New Definition and Guidelines for Federal Research Agencies," Federal Register, 65 (December 6, 2000): 76254-76260.

4 Institute of Medicine, Preserving Public Trust: Accreditation and Human Research Participant Protection Programs (Washington, DC: National Academy Press, 2001), p. 59.

5 National Institutes of Health, "Required Education in the Protection of Human Research Participants," NIH Guide for Grants and Contracts (June 5, 2000).

6 Office of Research Integrity, PHS Policy on Instruction in the Responsible Conduct of Research (December 1, 2000).

Mark S. Frankel, Ph.D., is Director of the Scientific Freedom, Responsibility and Law Program at the American Association for the Advancement of Science (AAAS), where he develops and manages the association's activities related to science, ethics and law. AAAS has recently reissued its popular videos on Integrity in Scientific Research. Frankel organized a workshop on research integrity education at last year's CGS Annual Meeting and will be conducting it again at the CGS Meeting this December 2002 in Washington, DC.

Data Sources

continued from page 3

master's students and $16,800 for doctoral students. In other words, 47% of graduate students carry education-related debt, and that debt has more than doubled since 1993.

Discussion

The subtitle of the 1996 article asked the question, "challenge or opportunity?" While the question was in doubt six years ago, there is no doubt today--the new American graduate students are an opportunity for graduate education. They are a diverse, well-qualified group of students interested in responsive graduate programs with direct application to their careers. Some institutions have focused their graduate programs on this group and have been quite successful. For example, the University of Phoenix built a graduate school for working adults and their graduate enrollment now tops 23,000 students.

The last seven years has produced some very good news regarding the diversity of the graduate student population. The percent of women in graduate programs increased from 1993 to 2000, particularly in doctoral programs where women are now one-half of all doctoral students. The participation of minority-group members is up as well, with substantial increases for African American, Hispanic, and Asian students at the master's and doctoral levels. The troubling news is the increase in debt for the 47% of graduate students with debt. While the percent of students with debt has not increased, the average debt has more than doubled. The increase in debt has not appeared--so far--to dampen growth in enrollment. Nevertheless, it is important for graduate schools to recognize the financial and time investment that students are willing to make to earn an advanced degree. ❖

Notes

1 The report Student Financing of Graduate and First Professional Education will soon be available from the NCES at www.nces.ed.gov. In addition, the NCES database will be available for analysis via the Data Analysis System either through the NCES web site (http://nces.ed.gov/das) or on CD-ROM.

2 Importantly, the increase in the participating of women in doctoral education has occurred in all fields. Even when the field of education, where 71% of the doctoral students are women is separated out, women constitute 46% of doctoral students.

3 Note that NPSAS income data include both taxed and untaxed income, and therefore would include TA, RA and fellowship income. Moreover, many students--especially in the field of education--pursue the doctoral degree on a part-time basis. Accordingly, their salaries are part of the computation of average salary. For example, when doctoral students in education are removed from the analysis, the average income falls from $41,300 to $34,700.

The CGS/Sloan Professional Master's Initiative Update

CGS has received a grant from the Sloan Foundation to expand the Sloan Professional Master's Initiative (see www.sciencemasters.com and *Communicator*, January/February 2002) to CGS master's focused institutions. The RFP for a Phase A planning/assessment grant was issued to 115 CGS member institutions in January. We are extremely pleased to receive approximately 40 responses and grateful to the tremendous effort that these institutions expended to produce proposals that were, without exception, interesting, creative and ambitious. Proposals were reviewed for institutional context and proposed activities to: determine local/regional non-academic workforce needs, potential applicant pools and student demand, institutional commitment and feasibility of developing professional science master's degrees, the breadth of science areas to be considered, and the fit to the interests of the Sloan Foundation's professional science master's initiative. On the basis of these reviews, awards averaging $8,000 were made to 35 institutions. Awards reflected the merit review scores as well as the breadth of science areas to be considered; the average award was $8,000.

The 78 proposed professional programs spanned over 20 different areas of applied and interdisciplinary science. Approximately 20 of the programs were in biological sciences in areas such as bioinformatics (7), biotechnology (8), biostatistics, molecular and cellular biology, and related programs in nursing informatics and information science. Over 15 of the programs were in mathematical and computational sciences, such as applied computing, applied math, financial or industrial math and quantitative risk analysis. Five programs were related to environmental science/technology. There were several especially interesting programs in forensic science, security science and engineering, digital multimedia technology, and imaging science. Other areas included applied/industrial physics and manufacturing technology.

Institutions with Phase A awards have already begun the activities that are expected to result in several proposals for Phase B implementation awards, due to CGS in mid-October. Phase B proposals will be reviewed by a review team to be named by CGS. The Sloan Foundation will then review the final reports and Phase B proposals. We expect the Sloan Foundation to make several Phase B awards.

An e-mail list has been established and awardee institutions are encouraged to interact with one another as they begin their Phase A projects. Please address any questions about the CGS/Sloan Phase A program to either Les Sims at lsims@cgs.nche.edu or Peter Syverson at psyverson@cgs.nche.edu. ❖

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Volume XXXV, Number 6
July 2002

Lance Pressl Named New Vice President for Federal Relations and Public Affairs at CGS

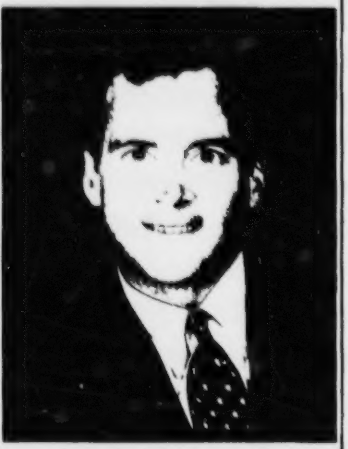
Lance Pressl, Ph.D., was named Vice President for Federal Relations and Public Affairs at the Council of Graduate Schools (CGS), the leading national organization dedicated to the improvement and advancement of graduate education. His appointment, effective July 8, was announced on June 12, 2002.

As CGS's new Vice President, Dr. Pressl will be responsible for designing and implementing a public policy strategy that supports CGS's goal of advancing graduate education. He will advocate with Federal agencies and the Congress, work closely with the CGS President regarding the advancement of the graduate education policy agenda, and communicate regularly with CGS members on federal relations and public policy issues. In addition, he will serve on the senior management team and work on organizational advancement strategies. "CGS is privileged to have a leader, in our federal relations and public affairs efforts, who has distinguished himself in the public, private and nonprofit sectors. Lance Pressl brings to this new role a clear vision of the importance of graduate education to the welfare of the country. He knows the complexities of negotiating the public policy domain in Washington. I am confident we have made an outstanding choice in this appointment," said Debra W. Stewart, President of the Council of Graduate Schools.

Dr. Pressl began his professional career in state government, serving as a budget analyst for the Illinois Bureau of the Budget, and later as a Special Assistant to the Chairman of the Illinois Commerce Commission. In 1987 he joined a small Chicago-based venture capital firm as its Vice President and, beginning in 1990, served as Director of Government Affairs for Kraft Foods, Miller Beer and Philip Morris USA, of Philip Morris Companies, where he worked in Washington, D.C., and New York.

In 1996 Dr. Pressl was named President of The Civic Federation, the oldest taxpayer watchdog organization in the United States, and was widely credited for revitalizing the organization and developing a nationally recognized, nonpartisan research and action agenda. The leadership he demonstrated at the Chicago-based Civic Federation earned him a gubernatorial appointment to the Illinois Government Accountability Council. Dr. Pressl also experienced electoral politics first hand, when he won the Democratic primary election in March 2000 and became the Democratic candidate for the Illinois 8th Congressional District.

Terry Hartle, Senior Vice President, Division of Government and Public Affairs at the American Council on Education, observed, "Lance brings an academic's knowledge of higher education and a practiced political eye to this job. He will be a great asset to Congress, the Executive Branch, and the higher education community. I look forward to working with him to advance graduate education." Carol B. Lynch, CGS/NSF Dean in Residence and Vice Chancellor for Research and Dean of the Graduate School at the University of Colorado at Boulder, served as the search committee chair. Dr. Lynch shared, "I am tremendously gratified that we were able to attract our top choice out of a very large and exceedingly well qualified applicant pool. Clearly the Council of Graduate Schools is held in high regard by these attractive candidates. I believe that Lance Pressl brings the stature, drive and experience that will serve CGS well as we seek to move to new levels in the arenas of federal relations and public policy."



Dr. Pressl received his doctorate in political science, M.A. and undergraduate degrees from Northwestern University. He has written and published a number of research papers, and has taught political science and public finance at the undergraduate and graduate levels, respectively.

"I am honored to join the CGS team," said Pressl. He continues, "I look forward to working with the graduate school community to build upon the many accomplishments already in place. I plan to ensure that graduate education is well positioned in the public policy arena to achieve its objectives and to address future challenges."

The Council of Graduate Schools welcomes Dr. Lance Pressl to the graduate education community and looks forward to working with him to establish a strong federal relations program that will serve the CGS membership. ◆

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The University of Missouri - Columbia (MU) is named 2001 CGS/Peterson's Award Recipient

by Suzanne T. Ortega, Vice Provost for Advanced Studies and Dean of the Graduate School, University of Missouri - Columbia

On December 6, 2001 at the CGS annual meeting, the University of Missouri - Columbia (MU) became the proud recipient of the CGS/Peterson's Award for Innovation in Promoting an Inclusive Graduate Community. Sponsored by Peterson's, a division of Thomson Learning and the Council of Graduate Schools, the award is designed to recognize and encourage campus-wide initiatives that foster the multiculturalism and inclusivity that are fundamental to quality research and higher education.

Like many large state universities, MU has spent much of the past decade focusing attention on the recruitment of a more diverse graduate student body. There is no doubt that these efforts have met with considerable success. As a result of the development of a well supported institutional fellowship program, memoranda of agreement with a number of Historically Black and Hispanic-serving institutions, and such federally-funded undergraduate-to-graduate pipeline programs as the Missouri Alliance for Graduate Education and the Professorate, the Louis Stokes Heartland Alliance for Minority Participation, and Ronald E. McNair Postbaccalaaureate Program, MU has seen a 56% increase in the enrollment of underrepresented graduate students over the last 10 years. Nevertheless, there is still a long way to go.

> **"The heart of a great institution is one that fosters a clash of ideas, the excitement that different perspectives bring to an academic community. We are committed to the power of education to transform people."**
>
> - Suzanne T. Ortega, Vice Provost for Advanced Studies and Dean of the Graduate School, University of Missouri - Columbia

At the core of the MU proposal, is the recognition that further improvements in access to graduate education and in the development of a truly multicultural learning environment depend on the capacity of departments and programs to build a more extensive and effective diversity and inclusivity infrastructure. Leadership by the Director of Graduate Studies (DGS) is one essential element of such efforts. However, the DGS role is still largely seen as a service obligation. With few rewards or resources attendant to it, the position is generally filled by a faculty member, appointed on a two- to three-year rotation, who, with little direction from the departmental chair or previous DGS, is expected both to "run" the graduate program and also continue to engage in the full range of teaching and research activities. Thus, the goal of the MU proposal is to create a comprehensive series of events and activities, organized around the theme of inclusivity, that will provide opportunities for Directors of Graduate Studies to sharpen both their "transactional" and "transformational" leadership skills.

The proposal calls for implementation and institutionalization of a DGS network building and professional development program, that will be guided by an eight member advisory board, composed of one new and one more experienced DGS, faculty liaisons and prospective students from two of MU's minority-serving partner institutions, and graduate student leaders from the MU Association of Black Graduate and Professional Students and International Student Associations. The basic structure of the program is a kick-off DGS Leadership Summit, followed by a monthly seminar series directed towards understanding and implementing change with respect to issues such as teaching in a multicultural context, effective and fair annual student reviews, what race and gender have to do with science, and the nuts and bolts of recruiting, mentoring and successfully placing graduates. A culminating day-long capstone event will provide the opportunity for planning the subsequent year's program and for evaluating the success of the program in enhancing DGS leadership skills, especially with regards to inclusivity and the appreciation of diversity. Although a number of these elements are already in place, the CGS/Peterson's Award will make it possible to expand the program and

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COUNCIL OF GRADUATE SCHOOLS
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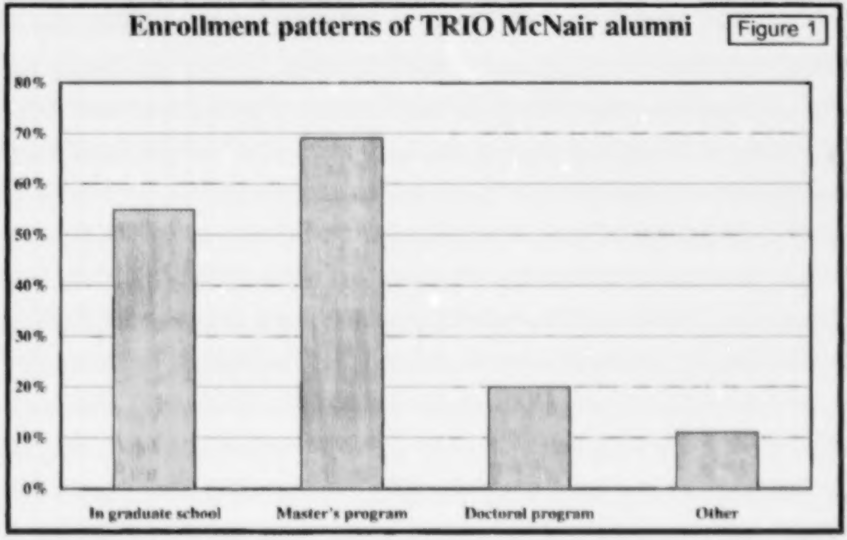
McNair Memos

by Peter D. Syverson, Vice President for Research and Information Services

McNair Program Alumni: A new report on their path to graduate school

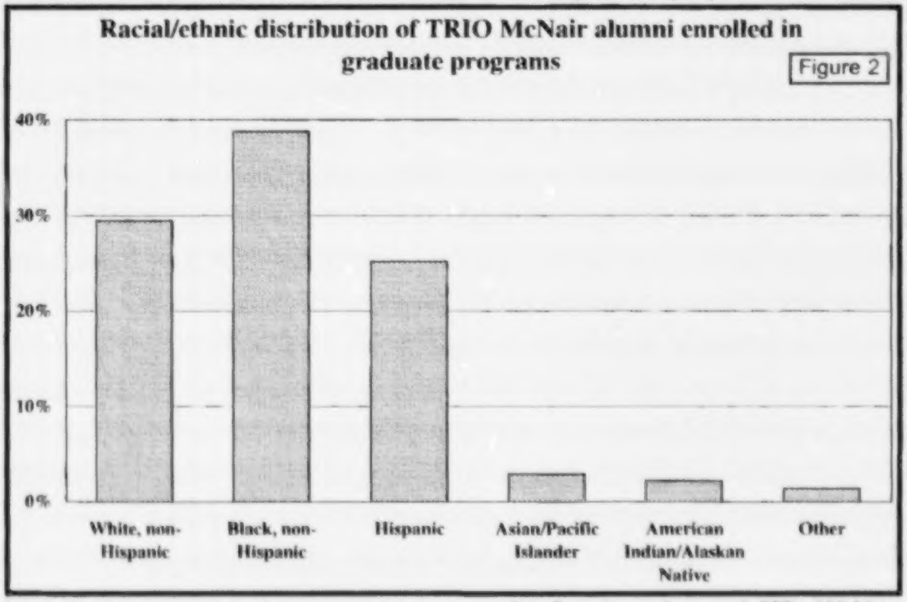
The purpose of the Ronald E. McNair program is to provide low-income first-generation undergraduates as well as undergraduates from underrepresented groups preparation for doctoral study. Of great interest, then, is the education trajectories of McNair program alumni--do they go on to graduate school, and if so, what kind of programs do they choose and how is their graduate study supported? A recent report from the Pell Institute[1] provides important information on the graduate education experience of McNair alumni in their first year of graduate school.



Enrollment patterns of TRIO McNair alumni

Figure 1

The study was based on two data sources--a survey of a sample of McNair scholars who earned baccalaureate degrees between the spring of 1997 and the summer of 1998, and the 1996 edition of the National Postsecondary Student Aid Study (NPSAS). Using NPSAS data allows the authors to make comparisons between the McNair students and a nationally representative group of undergraduates. Of the 462 students in the McNair sample, 252 or 55% returned surveys.



Racial/ethnic distribution of TRIO McNair alumni enrolled in graduate programs

Figure 2

Displayed in Figure 1 are the graduate-school[2] participation rates of McNair alumni who graduated in 1997-1998. A total of 55% of McNair scholars were enrolled in a graduate program within a year of receiving the baccalaureate degree. This is considerably higher than the national average of 16% of new bachelor's-degree recipients who go on to graduate school in the first year following graduation. In parallel with graduate students overall, more than two-thirds of McNair students reported enrolling in master's-degree programs and 20% went directly into doctoral programs. More than one-half (53%) of the survey respondents were attending non-doctoral degree-granting institutions.

Because McNair alumni tend to matriculate directly into graduate programs, they are considerably younger than the typical graduate student. Nearly two-thirds of McNair alumni are under the age of 25, and 80% are under the age of 30. This is in contrast to the overall graduate student population[3], where the average age is 33 and fewer than 15% are under the age of 25. Not surprisingly, they are also more likely to pursue their graduate degrees on a full-time basis (88%) compared to a national average of 50%.

Because of the unique combination of first-generation low-income and underrepresented groups, McNair graduate students are a highly diverse population. As shown in Figure 2, African American students represent 39% of McNair graduate students, much higher than the national figure of 10%. The same is true for Hispanic students, who are one-quarter of McNair graduates but just 6% of overall graduate enrollment. Overall, 70% of enrolled McNair alumni are from underrepresented groups. The White students involved in McNair are first-generation or low-income college students--populations also underrepresented in graduate education.

Nearly all McNair alumni receive some financial support for their graduate studies. According to survey results, 91% of McNair graduates reported receiving financial support, including loans. Higher percentages of McNair students report receiving assistantships, grants and loans than the typical graduate student. The greater financial need of this group of students makes loans a more common part of their financing package, with 50% of McNair students reporting using loans in the first year of graduate school compared to a national average of about 20% of graduate students taking out loans in any one year.

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NRC Launches a New Assessment of Research Doctoral Programs:

An Interview with Study Director Charlotte Kuh

The NRC is launching a new assessment of research doctoral programs, the last one being published in 1995. Could you give us a brief history and description of the last assessment?

The last assessment (Research-Doctorate Programs in the United States: Continuity and Change) came out in 1995 and reported on data and reputational rankings collected for the 1992-93 academic year. A similar study had also been conducted by the National Research Council under the auspices of the Conference Board of Associated Research Councils ten years earlier. Although public attention focuses on the reputational rankings, the 1995 study also contained descriptive measures of program faculty, students, and graduates that have been widely used by graduate programs to compare themselves to their peers and to design strategies to improve program quality.

An NRC study is conducted by a committee of experts. Last time around, the methodology used to generate the reputational rankings was to send faculty in similar programs lists of faculty for programs outside their own institution. They were then asked their familiarity with each program and asked to rate the "scholarly quality" and "effectiveness in educating research scholars" for the programs with which they were familiar. Data were also collected from either the institution or public sources on 17 other quantitative measures. These included faculty size, publications, and citations, grants, and characteristics of students and recent Ph.D.s. Unlike other "ratings" study, the NRC study presented the data it had collected without weighting and combining any of the measures. More details and the full text of the study can be found on the National Academy Press website: bob.nap.edu/html/researchdoc.

Six members of the CGS community are serving on the Methodology Study, including Earl Lewis, current CGS Board chair, and Joan Lorden, CGS Board chair-elect.

What do graduate deans need to know about the new assessment and how the NRC plans to approach it?

While the last study tried very hard to maintain continuity with earlier studies, there seems to be a consensus that this time around we should explore new measures and methodology in order to make the study more useful. To do this, we are conducting a study in two parts. The first, which has now begun, is a look at the methodology of assessing doctoral programs. It will examine four areas in depth: 1) the taxonomy of programs, criteria for inclusion, and ways to recognize multidisciplinarity; 2) the measurement of student outcomes and educational processes; 3) the measurement of reputation and presentation of reputational data; and 4) what other measures should be included in the study. A committee chaired by Professor Jeremiah Ostriker, former provost at Princeton, and 12 other people, has been appointed to do this, including six people from the graduate school community. Four panels will assist the committee, one for each of the above topics. As part of this methodology study, the committee will be asked to recommend whether a fully study should be undertaken. If it recommends undertaking a full study, it would be carried out in 2003-4, provided we can obtain funding.

What does this mean for graduate deans? In the course of the summer, the study committee will put up a website with issues about which we would like views from the graduate community. We will let graduate deans know about it through the CGS listserv and we hope it will be a place for lively discussion. If we go ahead with the full study, of course, we will be sure graduate deans are included on requests for data and, later, requests for the validation of data.

The NRC report gathers a lot of valuable information. How will you encourage people to look at more than just the reputational rankings?

Of course everyone loves a horse race, but it would be very disappointing if that were the sole focus of this study. The horse race view of the assessments obscures the fact that different programs have different missions and place graduates in a variety of different kinds of employment. The committee is worrying about ways to address the variety of program missions through different measures. It is also considering the possibility that the full study might produce a large database and some essays reporting on sample analyses using the database. As I have spoken to many groups concerned with graduate education, it is clear that the current approach to measurement of program reputation encourages bidding for "stars" and other kinds of possibly wasteful behavior designed to raise a program's place in the rankings. Program competition should be directed toward improving overall program quality. We hope that more emphasis on measures of the quality of the educational process and outcomes may accomplish this.

Regarding the inclusion of different fields, in the last report major areas of doctoral study were not included (i.e. business, agricultural sciences, and education). Is the next study going to include these fields?

As I mentioned earlier, this is a question the committee will address. I can't say now which new fields will be included, but in principle there is no reason why research doctorate programs in professional schools shouldn't be included. Possibilities include basic biological science programs in medical schools, economics programs in business schools, and basic science programs in schools of agriculture. What the committee will have to struggle with is where to draw the line.

The last study used a controversial taxonomy of programs (i.e. Biology). How is the next study going to insure that the field taxonomy used will accurately reflect the structure of these fields at graduate institutions? How does the study plan to capture interdisciplinary work? What about "new" fields?

Taxonomy is one of our four focus areas, and the biological sciences, which are extraordinarily dynamic, will present thorny issues this time, too. The only guide that I can think of is that programs should be grouped together if they have a similar theoretical underpinning and focus on understanding similar phenomena. Since there is a profusion of program names in the biological sciences, the committee will have to find some "umbrella" groupings here and also for multidisciplinary areas in other fields.

New and emerging fields present a different set of problems. There are a number of fields that weren't included in the 1995 study, that have since grown and should be included this time around. Again, the task of the committee will be to set criteria for inclusion. Number of Ph.D.s produced in the past three years is a likely criterion, as it was last time.

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K-12 Science and Mathematics Education: Is There a Role for the Nation's Graduate Schools?

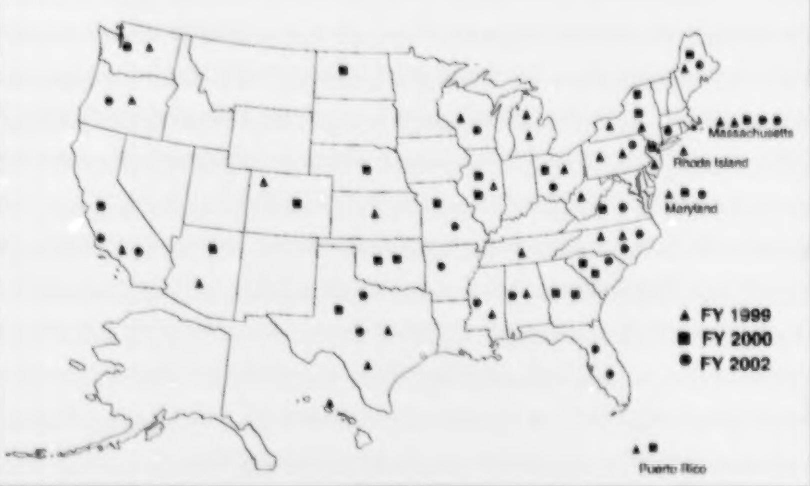
by John Jackson[1]

At a time when most Americans (93%) say that it is important for the United States to maintain its current global leadership position in science and technology[2], is there a role for science, technology, engineering and mathematics (STEM) graduate schools in K-12 education? The problems facing America's K-12 education today are many--large classes, small budgets, lack of public confidence, understanding local and national content standards, diverse student populations, etc. However, the problems facing America's mathematics and science K-12 educators are more complex, for example, antiqued equipment, unsafe and ineffective lab techniques, disappointing professional development in-services training, lack of engaging curriculum, credentialing, and content knowledge and more.

How can K-12 institutions--public and private--and the nation's graduate schools work together to meet these challenges? How can K-12 institutions and graduate schools develop educational partnerships? While the answer to these questions may vary, without STEM graduate schools interfacing with K-12 institutions, the problems in K-12 STEM instruction could be worse. So, what is the role of science and mathematics graduate programs? This article poses some answers through a discussion of a new National Science Foundation (NSF) program in the Division of Graduate Education, the NSF Graduate Teaching Fellows in K-12 Education (GK-12) program. This discussion is presented from the viewpoint of the K-12 community and the potential effects on participating universities and graduate students.

While recent research shows support for K-12 education[3], STEM K-12 instruction remains weak. *Before It's Too Late*[4], a report from the National Commission on Mathematics and Science Teaching for the 21st Century, in its Executive Summary states, "In an age now driven by the relentless necessity of scientific and technology advance, the current preparation that students in the United States receive in mathematics and science is, in a word, unacceptable. Recent reports of the performance of our country's students from both the Third International Mathematics and Science Study (TIMSS) and the National Assessment of Educational Progress (NAEP) echo a dismal message of lackluster performance, now three decades old; it's time the nation heeded if--before it's too late." Research studies in science and mathematics K-12 instruction recommend a number of improvements. Some improvements are related to educational philosophy and practices--eliminating low academic tracks, assessment issues or national standards; other improvements are related to teacher quality--match between teacher background and courses taught, teacher experience and training.

NSF GK-12 PROJECTS



In 1999, the National Science Foundation embarked upon a new ambitious program to address the critical issues of K-12 science, technology, engineering and mathematics instructions. Started with a budget of $14 million as a pilot program, the Graduate Teaching Fellows in K-12 Education (GK-12) program is now a formidable force to improve K-12 STEM disciplines. Today, this $22 million program has made available grants ($200,000-500,000 per year for up to three years) to over 70 STEM institutions across the United States and Puerto Rico. The program supports fellowship stipends for graduate students ($21,500 per year plus the cost of education) and advanced undergraduates ($5,000 plus $5,000 for summer activity) and associated training that will enable graduate and advanced undergraduate STEM students to serve in K-12 schools as resources knowledgeable about the content and applications of STEM. It is estimated that, by the end of this year, the program will have produced over 1,500 students who have assisted in K-12 institutions.

According to Dr. Rita Colwell, National Science Foundation, Director, "Researchers need to bring their expertise and enthusiasm out of the laboratory and into the classroom. The GK-12 program creates partnerships across the academic community that benefits research and education at every level. The GK-12 program boosts the content of elementary and secondary education and the quality of graduate and undergraduate education at the same time.... This is a very practical approach: graduate and advanced undergraduate students will get direct classroom experience; young scientists will get involved in the educational process at an early start in their careers; and the program gives recognition to teaching in a scientific careers."[5] For example, San Francisco State University's College of Science and Engineering and the San Francisco Unified School District have collaboratively developed a GK-12 project to serve students at under-performing middle and high schools. The University of Washington in Seattle PRIME (Partnership For Research In Inquiry-Based Math, Science and Engineering Education) developed unique partnerships with middle-grade school teachers to implement high-quality inquiry-based Mathematics, Science, and Engineering instruction. Another GK-12 project, TIGERS (Teams of Interdisciplinary Graduate Fellows Engaged to Reinvigorate Students) supports STEM K-12 instruction in rural counties of

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K-12 Education and the Role of Graduate Schools

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West Virginia. Their activities include enhancing curriculum development and facilitating long-term middle school student projects e.g., GIS - community atlas, weather station module and building mathematical scale models.

In the GK-12 program, the projects are becoming drivers of change--changes in graduate schools as well as K-12 institutions. First, graduate schools support GK-12 projects that engage energetic and talented graduate and advanced undergraduate STEM students. These GK-12 Fellows learn how to work effectively in K-12 classrooms. The Fellows work collaboratively across disciplines and grade levels, learn new pedagogic methods from K-12 teachers, and improve their overall science communications skills. Second, many GK-12 Principal Investigators include deans and STEM faculty. They learn first-hand about issues of K-12 education, and establish meaningful projects for the university. Ultimately, K-12 SMET teachers and students benefit, teachers gain a deeper understanding of content materials and students benefit from teachers who understand better how to teach.

Our nation is on the edge of an extraordinary revolution in scientific knowledge. The sciences and mathematics are the driving force behind this revolution. Our society relies on a knowledge-based community, rather than just the ability to manufacture things. New technologies such as Biotechnology, Nanotechnology, and Information technology offer us a promising future. These new breakthroughs in science and mathematics will lead to enormous opportunities for students in sciences and mathematics. STEM graduate programs and GK-12 Fellows are strategically positioned to influence K-12 sciences and mathematics instruction. Working through the NSF GK-12 program, graduate schools can help improve K-12 sciences and mathematics pedagogy; increase teacher content knowledge; and, ensure future survival and scientific competitiveness of our nation.

To learn more about the National Science Foundation, DGE, Graduate Teaching Fellows in K-12 Education program, visit the NSF website at www.her.nsf.gov/dge/program/gk12. ✧

Notes

[1] John Jackson is an Einstein Fellow at the National Science Foundation, Division of Graduate Education. Einstein Fellows are K-12 teachers selected through a competitive process and serve for one year in federal agencies to influence educational policies.

[2] The Bayer Facts of Science Education VI: Americans' View on Science, Technology, Education and the Future (July 11, 2000) Americans Like Being Number One, According To New Gallup Survey (www.bayerus.com/msms/news/index.html).

[3] National Public Radio/Kaiser Family Foundation/Kennedy School of Government Survey on Education (September 1999): Americans Willing to Pay for Improving Schools www.kff.org/content/1999/1521/education.results_1.html

[4] The National Commission on Mathematics and Science Teaching for the 21st Century. 2000. Before It's Too Late; U.S. Department of Education. Available at www.ed.gov/americacounts/glenn.

[5] National Science Foundation Press Release. 1999. New Awards Connect Higher Education and K-12 Classrooms. Available at www.nsf.gov/od/lpa/news/press/99/pr9966.htm.

New Deans and Titles

Tim Downs is Dean of the College of Humanities, Business, and Education at Gannon University in Erie, Pennsylvania. Downs was Dean of Graduate Studies and Lifelong Learning at Emporia State University.

Charles J. Hardy has been appointed the Interim Dean of the Jack N. Averitt College of Graduate Studies at Georgia Southern University starting July 1, 2002. Hardy has been serving as the Associate Dean of the College of Health and Professional Studies at Georgia Southern University.

The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

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SEVIS Resources

The INS is in the process of implementing SEVIS (Student and Exchange Visitor Information System), the new registration and tracking system for international students. The published schedule for the SEVIS launch in early 2003 gives this project tremendous urgency on campus. Listed below are three useful sources of information on SEVIS.

The first source is a website hosted by UC-Berkeley that contains a comprehensive set of links to authoritative information sources on SEVIS. The site url is www.ias.berkeley.edu/siss/sevis/

The second source is the NASFA: Association of International Educators SEVIS web page at: www.nafsa.org/content/ProfessionalandEducationalResources/ImmigrationAdvisingResources/sevpindex.htm

Finally, the INS web site lists SEVIS implementation seminars being conducted by EDS, the federal contractor developing the SEVIS system: www.ins.usdoj.gov/graphics/services/tempbenefits/sevistrain.htm

Send your comments, suggestions
or ideas about the
CGS *Communicator* to
Marta Perez Drake at
mdrake@cgs.nche.edu or 202-223-3791.

MU named CGS/Peterson's Award Recipient

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to develop strategies for integrating it with other on-going Graduate School and campus initiatives--graduate student orientation, including those for international teaching assistants, Preparing Future Faculty and Professionals, Postdoctoral Enhancement, and academic program review.

"These institutions are passionate about the need to increase inclusivity in graduate education. They see the value that a diverse student body brings to the graduate education experience," notes Debra Stewart, President, Council of Graduate Schools. "We are seeing more effort not just in recruitment, but in ensuring long-term success for the students both academically and professionally."

Adds Michael Ditchkofsky, Director, Office of Academic Affairs at Peterson's, "We find it exciting that the applicants represent all types of institutions demographically and geographically - yet all are pursuing the goal of increased inclusivity in graduate study with vigor and creativity."

Fifteen schools vied for the coveted award. Along with the winning institutions, they are Bowling Green State University, Howard University, Johns Hopkins University, New Mexico State University, Northwestern University, Ohio University, Pennsylvania State University, Purdue University, SUNY University at Albany, University of Maryland - Baltimore County, University of Toronto, University of Wisconsin - Madison, Virginia Polytechnic Institute and State University, and Washington State University.

"These institutions are passionate about the need to increase inclusivity in graduate education. They see the value that a diverse student body brings to the graduate education experience," notes Debra Stewart, President, Council of Graduate Schools. "We are seeing more effort not just in recruitment, but in ensuring long-term success for the students both academically and professionally."

Adds Michael Ditchkofsky, Director, Office of Academic Affairs at Peterson's, "We find it exciting that the applicants represent all types of institutions demographically and geographically - yet all are pursuing the goal of increased inclusivity in graduate study with vigor and creativity."

"I can think of no other honor that means more to me personally or to this institution," said Ortega. "We are determined to increase inclusivity here. It is a fundamental commitment and value." ◆

New CGS/Peterson's Inclusiveness Project

With a grant from Peterson's, the Council of Graduate Schools has launched an initiative to disseminate to the graduate education community those lessons learned from the experiences of the graduate schools selected as Peterson's award winners. The focus of the project encompasses a variety of activities that contribute to the creation of an inclusive graduate community.

The Peterson's awards have been made to a wide range of graduate training institutions and have involved a broad spectrum of stakeholders in the graduate education process. What has been common across the awarded projects is that each school was selected, on a competitive basis, because it offered great promise for serving as a model for other institutions. The Inclusiveness Project will provide a much-needed means for widely communicating the enormously valuable lessons learned from the innovative efforts of award-winning graduate initiatives. As part of the project, CGS will publish a series of books and conduct other dissemination activities. ◆

At the 2002 CGS Summer Workshop...

Enhancing Diversity Presence: What Works? Monday, July 15, at 9:00 am

This workshop plenary session will focus on the Peterson's diversity and inclusiveness best practices project. Lessons learned will be reviewed from analyzing the experiences of the graduate schools selected as Peterson's award winners over the past eight years. The purpose of this workshop is both to inform the graduate community about the results of the June 2002 idea exchange meeting in Princeton and to solicit additional ideas. ◆

McNair Memos

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Discussion

The Pell Institute study provides a useful snapshot of the first-year graduate experience of the McNair classes of 1997-1998. The survey responses indicate that many McNair scholars have gone directly to graduate school, and are pursuing master's, doctoral, and professional degrees. These McNair alumni are younger than the national average and more likely to enroll in graduate school on a full-time basis. Because many are low-income students, they have greater financial need but appear to be funded at higher rates than the national average.

Of concern is that many McNair graduates are pursuing the master's degree rather than the doctorate. This finding may seem at odds with the legislative purpose of McNair to prepare students for doctoral study. However, there are two factors that need to be taken into account. First, the survey response rate was just 55%, which means that there is a large group of McNair graduates that is not accounted for in the data. Second, the McNair alumni may be using the master's degree as a stepping-stone to a doctoral program in the future. Clearly, this study indicates a need for following up with McNair scholars further into their graduate careers. Finally, graduate schools interested in recruiting a diverse group of well-prepared students for doctoral programs should consider contacting the McNair alumni who begin their graduate careers with the master's degree. ◆

Notes

[1] The report titled Financing the First Year of Graduate School: A Study of TRIO Ronald E. McNair Post-Baccalaureate Achievement Program Alumni was written by Nicole Norfles and Thomas Mortenson. Copies of the report are available from the Pell Institute for the Study of Opportunity in Higher Education, 1025 Vermont Avenue, N.W., Suite 1020, Washington, D.C. 20005, tel: (202) 638-2887.

[2] This survey defined graduate school to include master's, doctorate, and first-professional (medicine, law, etc.) degree programs.

[3] See the Data Sources column in the June 2002 *Communicator* for a discussion of the demographics of the contemporary graduate student.

NRC Interview with Kuh

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The results from the last study showed a clear correlation between size of the program and the program ranking. How will the NRC minimize the way program size affects the rankings?

You've made an implicit assumption that the relation between size and ranking is spurious. I don't think that's justified. Programs can become big because they are high quality and attract good students and research funding and then grow bigger. What we have to examine closely is fair treatment for high quality programs that specialize in just a few areas. I call them "niche" programs and they are small by design. Programs may also be small because a field is shrinking and they are failing to attract good faculty and students. We should be able to distinguish between one and the other. The committee is looking at this question.

What would you say to a new dean about the study's importance and ideas for intended use?

These studies are a little like merit reviews for personnel. Merit reviews are neither a surprise nor a problem if there is good regular communication between the reviewer and the person reviewed. Problems arise when that doesn't happen. Similarly, we don't want the NRC assessment to be viewed as unfair or capricious. We want lots of feedback and advice from the graduate community about what we should measure. Ideally, the study will provide good comparative information for similar programs that will be useful in improving quality in doctoral education across the board. Sure, the study will be important and will be available to external constituents--students, parents, and legislators. But a dean, even a new dean, knows more about his or her programs than the NRC ever will. It is the combination of that insider knowledge and the data from the NRC study that should help graduate deans focus resources and improve their programs--and tell the outside world that that's just what they're doing. ◆

Charlotte V. Kuh is Deputy Executive Director of the Policy and Global Affairs Division in the National Research Council and serves as study director for the Committee to Examine the Methodology of Assessing Research-Doctorate Programs. Before coming to the NRC in 1995, she was executive director of the Graduate Record Examinations Program. She was educated as an economist and received her Ph.D. from Yale University.

MARK YOUR CALENDAR

On Saturday morning, December 7, 2002, CGS will hold a plenary session on the NRC Assessment at the CGS 42nd Annual Meeting in Washington, D.C.

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Volume XXXV, Number 7 August-September 2002

Postdoctoral Appointments and Employment Patterns of Science and Engineering Doctoral Recipients Ten-plus Years after Ph.D. Completion: Selected Results from the "Ph.D.s - Ten Years Later" Study[1]

by Maresi Nerad, University of Washington, Seattle and Joseph Cerny, University of California, Berkeley

In an episode of the highly acclaimed television show, *Law & Order*, a physicist, unable to find an academic position after years of education and postdoctoral appointments, is working as a doorman at a New York hotel. When he discovers that his proton decay theory has been stolen by a celebrated physicist, he snaps. A letter bomb intended for the unscrupulous scientist instead kills his estranged wife. The story includes a few more twists of plot: an affair, a prosecutor sympathetic to the misguided physicist/doorman, and plenty of commentary on the underemployment of highly educated scientists. Luckily, although the television series is often based on actual events, most scientists do not end up spending their post-Ph.D. years behind bars serving 25 to life. What are the career outcomes for science and engineering Ph.D. recipients?

Ph.D.s - Ten Years Later, a national study of the career paths of doctoral recipients and the feasibility of assessing doctoral programs in terms of the career outcomes of graduates, addresses this question. The study involved almost 6,000 Ph.D.s from 61 doctorate-granting institutions across the United States[2] and focused on six disciplines selected from major fields of study: life science (biochemistry), engineering (computer science, electrical engineering)[3], humanities (English), physical science (mathematics), and social science (political science). We selected the 61 universities based on their participation in the 1982 National Research Council doctoral program assessment, the availability of doctoral programs in the selected fields, level of Ph.D. production (minimum of six Ph.D. degrees in the three years sampled), geographical distribution, and a representative mix of private and public institutions. Once an institution was selected, all doctoral recipients of the relevant programs were included in the survey population. No sub-sampling occurred. This survey population accounted for 57% of Ph.D. degrees awarded at all U.S. institutions in the six selected disciplines between July 1, 1982, and June 30, 1985.[4]

We obtained addresses for Ph.D. recipients from participating institutions, commercial locator agencies, professional association membership directories, the national faculty directory, the national telephone directory and on-line search engines as well as library author searches. Surveys were mailed out between October 1996 and October 1997. The overall response rate was 63% (66% from U.S. citizen and permanent resident Ph.D.s and 52% from foreign doctorate recipients who were temporary visa holders at the time of their doctorate completion).[5] Biochemists responded at the highest rate of 68% (70% of domestic Ph.D.s), English Ph.D.s and political scientists followed with response rates of 67% (also 67% of domestic English Ph.D.s) and 64% (68% of domestic political scientists), respectively; we achieved response rates of 63% of mathematicians (67% of domestic Ph.D.s), 60% of computer scientists (65% of domestic Ph.D.s), and 53% of electrical engineers (57% of domestic Ph.D.s).

The survey questionnaire focused on the employment history of the doctorate recipients and probed about the job search process and factors important in the decision to accept the first and current positions; it also asked for retrospective evaluations of their doctoral program and the usefulness of the doctoral degree. In addition to the survey, we conducted in-depth interviews with 64 people to provide information about the context within which people make career decisions. We chose those interviewees according to regional density by discipline, and by willingness and time to be interviewed. The *Ph.D.s - Ten Years Later* data set has been integrated with the *Survey of Earned Doctorates* data of the same group, allowing analysis by type of institution, time-to-degree, program size, parental education, and fellowship support.

A comprehensive analysis of the findings from the Ph.D.s - Ten Years Later study will appear in the forthcoming book *The Ph.D.- Passport to Multiple Destinations*. Here we present major findings regarding postdoctoral appointments and employment outcomes ten to thirteen years later for the five science and engineering fields.[6] The numbers reported have been weighted to be representative for the population of 170 Ph.D.-granting institutions

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Ph.D.s - Ten Years Later: Selected Results

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rated in the 1982 NRC doctoral program assessment.[7] Where appropriate, we compare the findings from *Ph.D.s - Ten Years Later* to results of the *Survey of Doctorate Recipients* (SDR).[8] Differences between the groups[9] have been cited only if they are statistically different at the 95% confidence level.

Postdoctoral Appointments

Postdoctoral appointments are a standard component of careers in the life sciences and common in the physical sciences. Eighty-five percent of biochemists reported having held an average of 1.5 postdoctoral appointments for an average of 3.8 years. Close to a third[10] (28%) of mathematicians reported holding an average of 1.5 postdoctoral appointments for an average of 2.4 years (table 1). Among biochemists and mathematicians who had worked as postdocs, a substantial minority (40%) reported having had two or more postdoctoral appointments.

Postdoctoral appointments are much less common in the other fields surveyed, with only 9% of electrical engineers, 8% of computer scientists, and 8% of political scientists reporting ever having held a postdoctoral appointment (table 1).

Employment by Sector and Ph.D. Employment Type in 1995

Ten to 13 years after completing graduate school, more than half of the Ph.D.s in biochemistry, computer science, and electrical engineering were employed outside the academic sector in the business, government, and non-profit sectors (BGN).[11] In contrast, more than two-thirds of the mathematicians and political scientists worked in the academic sector[12] (figure 1 - see page 7).

Although only small percentages of each group worked simultaneously in both sectors, this work pattern might be an interesting future trend, given the increasing interactions between academic institutions and industry, and should therefore be monitored.[13]

Ten years after earning the doctorate, 53% held academic appointments. 39% of Ph.D. recipients in the five science and engineering fields worked for doctorate-granting universities[14] while 14% worked for non-Ph.D.-granting universities. About one-third of the Ph.D. recipients worked for business and industry employers. The remaining 14% were spread across several different kinds of employers, with 4% working for local, state, and federal government agencies, 2% for non-profit organizations, 2% for national laboratories, and 6% working for military, university hospital, community colleges, and "other" employers.

Academic Employment

Although most Ph.D. recipients employed in the academic sector were tenured faculty by 1995, there were important disciplinary differences (figure 2 - see page 7). Due to lengthier postdocs, only one-third of biochemists in academe had tenure[15] and another 34% of them were in tenure-track positions in 1995. Biochemists also had the largest group (33%) in other academic positions; these were primarily research or lecturer appointments.

Total Annual Median Salary[16]

For Ph.D. scientists in each of the five fields, total annual median salaries were higher by about $17-28,000 in the BGN sectors than in the academic sector.[17] The total annual salary reflects pretax income, including bonuses, overtime, summer teaching or research and pay for other extra activities. Computer scientists and electrical engineers reported the highest annual salaries in the academic sector, while the political scientists in the business sector reported the highest median business salaries (figure 3).

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TABLE 1: **Postdoctoral Appointments by Field**

Field	*Percent Having a Postdoc*	*Mean Number of Appointments*	*Mean Years*	*Median Years*
Biochemistry	85%	1.5	3.8	3.5
Computer Science	8%	1.2	1.5	1.1
Electrical Eng.	9%	1.3	1.7	1.1
Mathematics	28%	1.5	2.4	2
Political Science	8%	1.3	1.3	1

Note: Excluded from these calculations are any postdocs that began immediately after the Ph.D. in the Ph.D- granting institution and lasted for less than 9 months.

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RETURN OF THE MASTERS[1]

by Moheb A. Ghali, Dean of the Graduate School, Western Washington University

INTRODUCTION

In spite of the title, this paper is not intended primarily for Masters focused institutions. The overwhelming majority of graduate degrees granted by Doctoral institutions are Master's degrees.[2] In 1999 90% of the graduate degrees earned in the United States were Masters degrees.[3] Although I will focus my discussion on the Master's degree, the real issue I am addressing is the efficiency and the costs of the Ph.D. education. The conclusion I draw and the recommendations I present are for the restructuring of graduate education, especially the doctoral education.

For the purposes of this article, I group master's degrees into three categories:

a. Professional Master's such as the M.Ed., MBA, MFA, MSW and the MPH.
b. Professional Science Master's, a new development initiated six years ago at Doctoral institution through a grant from the Sloan Foundation to CGS, and recently expanded to Master's Focused Institutions.
c. Research Master's that are intended as a preparation for pursuit of research career or for enrollment in doctoral programs.

My discussion is focused on the third group, the Research Master's. The discussion consists of a series of issues that are of concern to all graduate schools. Following each issue I present a proposition. While you may find some of the propositions obviously true needing no verification, nonetheless, the propositions I make are empirically testable hypotheses. With each I describe the data that would support or refute it. All propositions lead to the same conclusion: a proposal for a change in the structure of graduate education. One need not agree with all of the propositions to reach this conclusion: if only two or three are valid my conclusion holds. I will not state this conclusion now, as it will become increasingly obvious, almost inescapable, as the arguments progress. What I would state at this point is that the conclusion is not new: the change I advocate was the norm in the US prior to the 1960s and is still the norm in much of Europe.

THE ISSUES AND PROPOSITIONS

ISSUE: ***Decision to Pursue Graduate Education.*** Information needed by undergraduate students in order to make decisions regarding whether to pursue graduate education is not adequately provided by the undergraduate education model. Advanced undergraduates may, on occasion and on a random basis, have glimpses of what is expected in graduate education. This occurs if they happen to work in a small research group with graduate students serving as group leaders. The probability of this occurrence is higher in the sciences. However, this tends to be the exception; there is no guarantee that such would be the expectations as providing the environment generating this information is costly.

Recently, the Pew Charitable Trust initiated a survey of doctoral education. More than 4,000 graduate students in their third year of graduate education or above from 11 arts and sciences disciplines in 27 institutions participated. The authors found that, "However, a startling number of students report that they do not understand what is expected of them as students and what they can expect from their programs."[4] They also report that, ""In sum, the comments of the respondents reveal that many students came to graduate school with unformed expectations."[5], and that, "Students reported that they decided to enter a doctoral program without having a good idea of the time, money, clarity of purpose, and perseverance that doctoral education entails. The data reveal that many seem to have entered the pursuit of the doctorate blindly."[6]

Proposition: Undergraduate and Doctoral education are qualitatively different. A Master's experience is qualitatively closer to Doctoral education and thus provides the student better information on the nature and the expectations of a Doctoral program. The decision to pursue a Ph.D. made by a Master's candidate is a better-informed decision. In a recent study of graduate students who did not complete their doctorate the authors write: "...it may be helpful to acquaint undergraduates with the culture and expectations of graduate study. Hierarchization, competition, devotion to the profession, and other features of graduate studies that may not characterize the undergraduate experience should probably be signaled in advance."[7]

Data: The dropout rate, or non-completion rate, of Ph.D. students who entered the program with an undergraduate degree should be higher than that of students who had completed a Master's degree.

ISSUE: ***Information to Potential Students.*** Information needed by potential students on which graduate programs best meet their needs is limited by the student's knowledge of the field. Vast amounts of information are available electronically on the various graduate programs, faculty research interests, the active projects and research groups In small undergraduate colleges faculty members give guidance to their students narrowing the range of information to be searched. However, ultimately this information becomes useful only when the student has determined the narrow specialization she is interested in. Some undergraduates may be able to make that determination. For the majority, however, such is not the case as their knowledge of the field is limited.

Proposition: Commitment to a narrow specialization and the selection of a graduate program on the basis of that choice are not as essential at the Master's level. Furthermore, the education received at the Master's level can be of great value in selecting the specialization and thus the appropriate program. Both the advanced knowledge and the closer guidance from faculty members during a Master's education increase the probability of making the right choices. The authors of the Pew Survey report that, "Nearly half (49.1%) of respondents report that they would or might select a different university. Additionally, 36.8% and 41.8% answered "yes" or "maybe" to whether they might select a different advisor or dissertation topic, respectively."[8] The recent book *Leaving the Ivory Tower* the author writes: "Yet graduate students - completers and noncompleters - nonetheless appear to be relatively uninformed about the programs to which they apply."[9]

Data: The relative frequencies of transfers to other programs and changes in specialization or dissertation topic should be lower for students who completed Master's programs than for those who entered Ph.D. programs with undergraduate degrees.

ISSUE: ***Admission Decisions.*** Standardized tests do not adequately provide the information needed by Graduate Schools and Graduate Programs to make admission decisions. At best, these tests are predictors of success in the first year of graduate school. The reason for this is that the skills tested are those needed for learning existing knowledge. The tests are not designed to evaluate the potential for discovery and innovation. Lovitts writes:

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RETURN OF THE MASTERS

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" Evidence presented in chapter 1 shows that little or no difference exists between completers and noncompleters in entering academic ability. This indicates that criteria currently in place to select students based on academic achievement are not good predictors of success."[10]

Proposition: A Research Master's Thesis is a better than a standardized test in predicting success in a doctoral program. The rationale is clear: the potential for discovery and innovation is usually clearly evident in a thesis. In a study sponsored by the American Council on Education, Dean Snell wrote: "...in deciding whether or not to allow a student to continue graduate study beyond a first or subsequent year, graduate faculties need to base their judgement on the quality of the student's research, writing, and examinations for the master's degree."[11]

Data: This hypothesis can be evaluated by comparing the correlation between the standardized test scores and the Ph.D. completion rates with the correlation between the successful completion of a Master's thesis and the Ph.D. completion rates. In doing this comparison one should eliminate those cases in which the Master's degree was granted as a matter of course in the process of completing the Doctorate. Fortunately such cases do not normally entail completion of a master's thesis.

ISSUE: ***Access for Disadvantaged Groups.*** Access to graduate education is limited by economic factors. The geographical location of the program and its proximity to the student's residence affect the cost of education. Master's education is more geographically dispersed, and is thus less costly to students.

Proposition: Master's education is more accessible to economically disadvantaged groups than Doctoral education. This is not only because of the length of time involved in Doctoral programs, but also because the costs of the first two years of a doctoral program taken at a Master's institution are lower than at a Doctoral institution. The rationale is similar to that explaining why economically disadvantaged students tend to complete their first two years of college at a two-year institution (geographically more accessible) and then transfer to a four-year institution.

Data: The distribution of graduate students by economic status at the Master's level should show larger percentage of disadvantage students than at the Ph.D. level.

ISSUE: ***Access for Minority Students.*** Access to graduate education by minority students and first-generation graduate students is limited by social expectations, psychological factors as well as economic conditions. The under-representation of certain minority populations and first-generation students in Doctoral programs is a long-standing issue. New approaches to increase access of these groups to Doctoral education are needed. In a recent issue of the *Communicator* Syverson writes that between 1993 and 1999-2000: " At the masters level, the percentage representation of African American and Hispanics doubled, while Asians increased from 4 to 6%."[12]

Proposition: The influence of social expectations, psychological factors and economic conditions on the decision to pursue graduate education at the Master's level is weaker than their influence on a decision to pursue the doctorate. Furthermore, once a Master's degree is completed, the effect of those factors on the likelihood of pursuing a Doctorate is weaker than their influence at the start of a graduate education. This proposition has two parts. First, the probability that a promising student from the target groups will pursue a Master's degree rather than a doctorate is higher than the corresponding probability of a promising student from non-target groups. Secondly, the probability of a student from the target groups will pursue a Doctorate is higher if that student has completed a Master's degree.

Data: The data needed to test these two hypotheses are: (a) the ratio of enrollment rates of the target groups in Master's programs to enrollment rates in Doctoral programs, compared to the same ratio for non-target groups; (b) the relative distribution of target-groups students enrolled in Doctoral programs with or without first completing a Master's.

ISSUE: ***Graduate Degrees Appropriate for Career Goals.*** There is a probability that bright undergraduates applying for admission to graduate schools may have not yet firmed up their career goals. Students enrolling directly in Doctoral programs who later decide that their career goals do not require completion of the Doctorate have two options. These are: withdrawing from the doctoral programs and attempting to obtain a Master's degree, or continuing in the Doctoral program because of pressure from faculty or fellow students. Choosing the first option, the student is usually looked upon by colleagues, faculty and by herself as a failure. The Master's degree earned is looked upon as a consolation prize. Choosing the second option is clearly an unwarranted expenditure of resources. The problem is that there is no natural, clearly defined and honorable exit point short of completing the Doctorate. Lovitts reported on the reasons graduate students reported for leaving the doctoral programs before completing the degree. Ten percent reported that they realized they "were doing the wrong thing with their lives."[13]

Proposition: Enrollment in a Research Master's program provides the student with a natural, well-defined and honorable exit point should she decide that her career goals are not best served by earning the Doctorate. This clear decision point may also be of value to the students considering interrupting their graduate education for family or financial reasons. The Pew Survey reports that of the graduate students in their third year or higher, "Three-quarters would not reconsider their decision to start a Ph.D. program."[14] This means that fully a quarter of advanced graduate students have doubts as to whether a doctoral program is the right choice. One would expect the percentage to be higher for graduate students who are in their first or second year of graduate education.

Data: If the hypothesis is true, the relative frequency of doctorate holders pursuing careers not requiring their training should be less for those who had completed Master's degrees (with theses) than for those who did not. In addition, the drop-out rates out, or non-completion rates, of Doctoral programs that do not require a Master's degree should be higher than in those that do.

ISSUE: ***Cost of Graduate Education.*** Graduate education is costly, and the cost increases for each successive year of graduate education. The resources, both in terms of faculty time and in research support, increase in successive years. So does the value of income foregone by the student, a significant part of the cost of education. The value of resources invested in producing a Ph.D. are, clearly justified if the Ph.D. is completed and if the person is then employed in a position requiring such training. The investment over successive years in, and by students who do not complete the doctorate, and those who complete it but pursue careers that do not utilize the training is not justifiable. In the study *Leaving the Ivory Tower* the author points out that the attrition rate has been close to 50% for many decades. In the *Academe* paper cited above the authors write: "Historically, graduate programs have been astonishingly wasteful of their human capital. Although comprehensive national data do not exist on the consequences of graduate students abandoning their degree programs, forty years of studies suggest that the long-term attrition rate nationwide is about 50 percent."[15]

Proposition: Considerable resources would be saved,

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Data Sources:

What's It Worth?

New analysis from Census Bureau shows higher degrees yield higher earnings

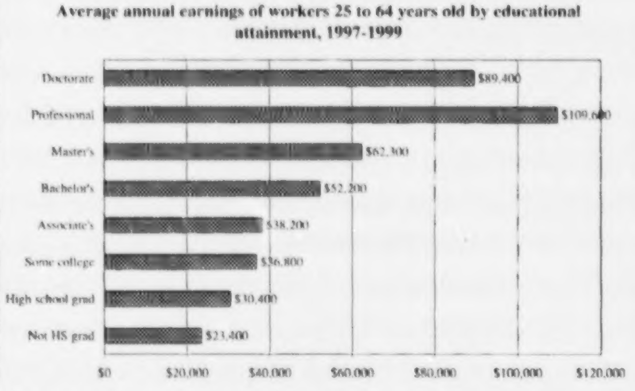
by Peter D. Syverson, Vice President for Research and Information Services

As the economy cools and students increasingly apply to graduate school, the question is often asked, "Do graduate degrees lead to higher earnings?" While the answer to that question will vary for any individual, for large populations the answer is decidedly yes. A new analysis published by the Census Bureau computes average salaries for the U.S. population, on both an annual and a lifetime basis.[1]

Employment and degree attainment data are collected through the Current Population Survey (CPS) a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The CPS is the primary source of information on the labor force characteristics of the U.S. population. The sample is selected to represent the civilian noninstitutional population.

CPS data on annual income by degree level for full-time year-round workers are shown in Figure 1. Averaging salary figures across the 25- to 64-year old population, the message is clear: the higher the degree, the higher the earnings. The first significant salary step is achieved by graduating from high school, and the second is having some college. The third and very significant income increase comes with the earning of the bachelor's degree. This single step raises earnings potential by more than one-third over the Associate's degree, and 42% above the "some college" category. Researchers have found a clear "sheepskin effect" with the earning of the bachelor's degree. That is, individual incomes are considerably higher for those who earn the bachelor's degree than for those who have accumulated three or more years of college credit, but no B.A.

Average annual earnings of workers 25 to 64 years old by educational attainment, 1997-1999

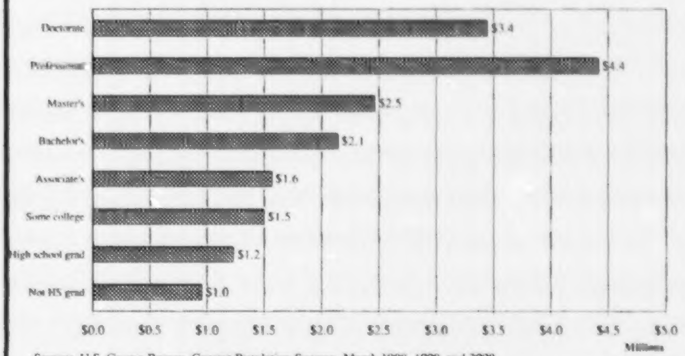


Source: U.S. Census Bureau, Current Population Surveys, March 1998, 1999, and 2000

Figure 1

Master's-degree recipients, on average, earn about $10,000 per year more than bachelor's-degree recipients, an increase of 19% in annual income. Those in the two highest degree categories, doctoral and professional (law, medicine, dentistry, etc.) earn an even higher increment above the master's degree. Doctorate recipients earn 43% more than master's-degree recipients and 71% more than bachelor's-degree recipients. Professional degree recipients earn on average the highest salaries, 23% more than doctorate recipients and more than twice as much as bachelor's-degree recipients.

Synthetic work-life earnings estimates for full-time workers by educational attainment, in $millions



Source: U.S. Census Bureau, Current Population Surveys, March 1998, 1999, and 2000

Figure 2

Moreover, the salary differential between those earning bachelor's degrees and above and those with high school diplomas has been growing. In 1975, bachelor's-degree recipients had 1.5 times the annual earnings of workers with a high school diploma. In 1999, this ratio had risen to 1.8. The ratio of advanced degree recipients to high school graduates increased even more, from 1.8 in 1975 to 2.6 in 1999.

Work-life Earnings

Beyond annual salary differences, the Census Bureau is able to estimate work-life earnings based on a cross-sectional sample of workers at each age level from 25 through 64. The resulting figures represent what individuals could expect to earn in today's dollars, by level of education, during a 40-year working life. These "synthetic estimates" of work-life earnings are displayed in Figure 2.

As with annual salaries, work-life earnings increase with degree level. Master's-degree recipients earn on average $2.5 million over the 40-year period, about one-fifth more than bachelor's-degree recipients. In turn, doctorate holders are expected to earn 36% more than master's-degree recipients, and those with professional degrees will earn 39% more than doctorate recipients.

In addition, salary trajectories vary by educational level. While salaries of individuals with bachelor's degrees tend to peak when they are in their mid-50s, salaries of advanced-degree holders continue to rise. This increase is especially dramatic for those individuals with professional degrees, whose earnings increase dramatically after age 50, presumably because of law and medical practice partnerships.

Discussion

Graduate education provides many benefits to students: the opportunity to gain new knowledge, to participate in the process of discovery, and to teach others. In addition to the intellectual excitement and challenge is the fact that there is a very positive relationship between higher degrees and income. Of course, age and experience impact income as well, but the lifetime earnings estimates take that into account and still find a highly positive income bump from earning higher degrees.

It is clear from the Census data that the bachelor's degree has become the fundamental degree for a successful employment experience in this new economy.

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RETURN OF THE MASTERS

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both to the institution and to the individual student by introducing a clear decision point. This is so as the extensive investment required in the last two to three years of Doctoral education will be made in, and by only those with very high probability of completion of the Doctorate and of pursuing careers that utilize it. The authors of the Pew Survey find that, " Taking time off between undergraduate and graduate school, or even pursuing a master's degree before committing to a Ph.D., is a useful mechanism for helping determine if the Ph.D. is the right choice. As shown earlier, 68.4% of the students took at least a year off before enrolling: 76.8% of them would not change that decision."[16]

Data: The average cost of producing a Ph.D. in programs that require completion of a Research Master's should be significantly lower than the cost in programs, in the same discipline, that do not require the Master's.

ISSUE: ***Financial Support.*** Financial support for graduate students is limited. The number of students admitted to graduate programs is, in many institutions, determined by the institution's ability to guarantee support to admitted students for the number of years needed to complete the Ph.D. The commitments made to students who decide not to complete the degree can be re-allocated to new students. The value of this re-allocation is dependent on the timing of the student's decision not to continue, and whether she makes that decision explicit or simply fails to complete the degree.

Proposition: If students are first admitted as Master's students, financial support can be guaranteed for two--three years, depending on the field. Support for the next two-three years would be conditional on successful completion of the Master's thesis and decision to continue for the Ph.D. The effect of this is to reduce the uncertainty regarding financial resources available to make new commitments, as well as to use the amounts available efficiently.

Data: Institutional data on financial aid used to support students who did not complete the Ph.D., less the amount that was needed to support their first two-three years of graduate education would provide an estimate of the resources that could have been used to support new students.

ISSUE: ***Time to Degree.*** It may be argued that having the Master's and the Doctorate as sequential degrees rather than simultaneous or combined degrees may affect the length of time needed to earn the Doctorate. A Ph.D. program is usually divided into two distinct stages: the training stage and the research stage. Completion of the first stage is usually clearly demarcated by success in a series of Comprehensive examinations, and in some cases the successful defense of a research proposal. In the second stage the only requirement is the successful completion and defense of original research that makes a contribution to knowledge in the field. As such, it is hard to imagine savings in the research stage that could result from combining the two stages. Over 35 years ago Dean Snell wrote: " A carefully planned master's program need not unduly delay the progress of a able graduate student towards the Ph.D."[17]

Proposition: Clearly separating the Master's and the Ph.D. degrees and making them sequential rather than combined will not lengthen the time to degree. There may even be time savings as those who completed a Thesis may be more likely to start their doctoral research without lengthy search for a dissertation topic.

Data: Data on time elapsed from admission to the graduate program to earning the Ph.D. for the two groups: those who completed a Master's thesis and those who did not, should show no significant difference.

A PROPOSAL

In many countries completion of a Master's degree and the successful defense of a Master's thesis are required for admission to the Ph.D. program. The Master's stage is when a graduate student is trained in both the general and the more specialized state of knowledge in the field. It is the stage where the necessary research techniques are acquired. The comprehensive examinations demonstrate the student's mastery in the field, and the thesis demonstrates her ability to apply the research techniques specific to that field. Having established both, the student is ready to start the research phase, an undertaking that would require building upon what exists in order to add to knowledge. Indeed, up to the 1960's this was the structure of much of the graduate education in the United States. In a recent CGS sponsored study of the Master's education the authors write: "The number of students in master's programs in the liberal arts and sciences grew steadily after World War II, partly because the majority of the nation's doctoral programs required a master's degree for entry."[18]

I have argued that it is possible to show empirically that a return to that structure, separating the Master's and the Ph.D. degrees and making them sequential will have a number of desirable effects. It would provide better information to both the graduate school and the student. It would increase access of minorities, disadvantaged and first-generation graduate students to doctoral education. It would allow for a better fit between the degrees granted and those needed for career objectives. It would reduce the cost of doctoral education and increase the effectiveness of available financial aid. And it would improve the quality of the graduate experience. Even if only some, not all, of these effects can be empirically verified, the conclusion still holds: A RETURN TO THE MASTER'S[19] as a requirement is desirable.

There are three additional reasons that support the adoption of the proposed structure. First, implementation is quite easy and does not involve cost. Second, the change can be implemented by individual institutions, it need not occur universally. Thirdly, the change is easily reversible.

I would like to end by pointing out that the conclusion I have drawn, and the proposal I am advocating are identical to those made 32 years ago by Stephen Spurr, Dean of the School of Graduate Studies at the University of Michigan. Dean Spurr wrote:

"Looking at the master's degree as a whole….It is the first graduate degree and represents a significantly higher stage of accomplishment than the baccalaureate. It should be highly respectable. It can be made so, however, only if it is required of everyone…Upon completion of the baccalaureate, therefore, all students should be admitted only as candidates for the master's degree. No student would be admitted at this time directly to the doctoral program….As a result the Master's degree would become a required and necessary stepping stone en route to the doctorate. The fact that all students would be admitted only as candidates for the master's and must earn this degree means that the master's degree would always mark successful forward progress. It would, therefore, provide an appropriate stopping place for those who choose not to go further."[20] ◆

Notes

[1] This paper was delivered as the Presidential Address at the Western Association of Graduate Schools' 44th Annual Meeting, Seattle, Washington, March 2002.

[2] A former Graduate Dean at the University of Michigan wrote: " It is a curious fact that the faculties on many campuses underrate the importance of the master's degree. At Michigan, for example, many of the faculty think that they are primarily concerned with the Ph.D. program even though their departments produce several times as many master's as doctor's year after year." Stephen H. Spurr, *Academic Degree Structures: Innovative Approaches*, McGraw-Hill Book Company, New York, 1970, p. 67.

[3] NCES data in the *Communicator*, November 2001, p. 7.

continued on page 10

Federal Relations Update

by Lance Pressl, Vice President for Federal Relations and Public Affairs

CGS has a long and solid tradition of representing its members in Washington, DC. Providing timely information and advancing CGS positions have been the cornerstones of the services CGS provides members. The new Federal Relations and Public Affairs initiative will continue to build on the successes of the past and will work to prepare CGS members for the growing complexities of the public policy environment. To this end, CGS will initiate over the next six months a number of new programs and services for the benefit of its members. A number of the changes are listed below. We encourage your feedback and recommendations as we continue to improve our services to CGS members.

In an effort to clarify the role and scope of the Federal Relations and Public Affairs at CGS, a mission statement was prepared. The mission statement outlines the primary functions and duties of the CGS government affairs program.

CGS Federal Relations and Public Affairs Mission Statement

The CGS Federal Relations and Public Affairs program serves the common purposes of its members in four key areas, including:

Advocacy

Demonstrating active leadership in advancing graduate education by promoting sound legislation, regulations and budget policy and representing the interests of CGS members in all areas of external affairs.

Issues Management

Establishing processes to anticipate and take appropriate action on emerging trends, concerns, or issues likely to affect graduate education and CGS member institutions.

Communication

Advancing the public perception and understanding of the importance of graduate education and the benefits of graduate education to the research enterprise, society and the national economy. A variety of communication tools will be used to inform members, elected officials, the media, the business community, and other appropriate audiences in a timely and effective manner.

Information

Serving as a clearinghouse for information regarding graduate schools, faculty and students for the media, government officials and other targeted groups.

The CGS Legislative Action Agenda

CGS is committed to ensuring that the needs of graduate education are addressed in Congress, the executive branch and in regulatory matters. To support this effort, CGS will develop a multiyear Legislative Action Agenda. The Action Agenda will be designed to address immediate concerns facing the graduate education community, as well as lay the groundwork to meet longer-term legislative and regulatory goals of CGS. CGS staff will work with members of a newly formed CGS Advisory Task Force on Federal Relations and Public Affairs to assemble the legislative agenda items and proposals. The CGS Action Agenda will be updated regularly and reviewed by the Board of Directors annually. If you have any suggestions for items to be placed on the CGS Legislative Action Agenda, please do not hesitate to forward your ideas. A draft of the Legislative Action Agenda will be available in early December.

CGS Information and Action Alerts

To keep CGS members up to date on important public policy developments, CGS will issue CGS Information Alerts, on an as-needed basis, issue. These alerts are designed to provide up to the minute information concerning issues that are of immediate concern to CGS members. In addition, we will create a system to issue CGS Action Alerts for those rare instances when grassroots support is critical to advance or mitigate legislative or regulatory action. Action Alerts will provide a brief summary of the issue, as well as recommendations for specific action that interested CGS members can take to contribute to the policy effort.

Outlined above are just a few of the changes CGS will be implementing during the next several weeks to keep you informed and to ensure that CGS is well positioned in the policy arena to meet the short and long needs of the graduate school community. We will continue to improve and refine the programs we provide CGS members. As improvements are made, we will be sure to keep you up-to-date on our progress. Once again, we welcome your suggestions and recommendations. ◆

***Lance Pressl** can be reached by e-mail at lpressl@cgs.nche.edu or by calling the CGS offices at 202-223-3791.*

Data Sources

(continued from page 5)

Not only do bachelor's-degree recipients earn higher incomes, the income gap between high school graduates and baccalaureate recipients is growing as employer expectations rise. Moreover, unemployment rates decrease as one moves up the education ladder. Many believe that soon the master's degree will become the minimum degree for professional employment. This has already occurred in fields such as education, social work, and the health sciences.

Along with all this good news about income and employment is the disquieting fact that income disparities exist across demographic groups even when degree level is taken into consideration. Specifically, the Census Bureau reports that women earn less than men at every degree level, though this gap has narrowed considerably, especially for new entrants to the labor market. A similar situation exists for non-Asian minority-group members, whose incomes lag behind Asians and Whites, even for advanced-degree holders. Nevertheless, earning a graduate or professional degree has the same strong positive impact on earnings for minorities and women as it does for other population groups.

Finally, there are benefits to society from the higher education enterprise. Over their lifetimes, individuals with advanced degrees will earn higher salaries and in turn, pay higher taxes to federal, state, and local governments. And they are more likely to be involved in the civic life of their communities, through volunteer work and voting in local and national elections. As we begin the new academic year, it is important to recognize the full range of benefits that graduate education provides to students and to the nation. ◆

Notes

[1] U.S. Census Bureau, *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings*, report p.23-210, www.census.gov/population/www/socdemo/educ-attn.html.

New Deans and Titles

Kweku K. Bentil is Dean, School of Graduate Studies, at Indiana State University. Christopher Ingersoll was the former dean at Indiana State.

Victor A. Bloomfield is Interim Dean, Graduate School, and Vice Provost for Research at the University of Minnesota. He replaces Christine Maziar.

F. Douglas Boudinot is Dean of the School of Graduate Studies at Virginia Commonwealth University He replaces Albert T. Sneden.

Martin T. Cadwallader is Dean of the Graduate School at the University of Wisconsin, Madison.

Steve Centolla is Acting Dean, Graduate School and Extended Programs at Millersville University of Pennsylvania.

Kent E. Curran is Associate Dean of the Graduate School at the University of North Carolina at Charlotte. Curran replaces Andrew Harver.

Karen T. DePauw is Dean, Graduate School, at Virginia Polytechnic Institute and State University. The former dean was Joseph S. Merola.

Jill Ehling is Assistant Dean for Graduate Student Affairs at the University of North Carolina at Charlotte.

Terrance F. Flaherty is Interim Dean of the College of Graduate Studies and Research at Minnesota State University, Mankato. He replaces Anthony Filipovitch.

Jeffery Gibeling is Dean of Graduate Studies at the University of California, Davis. The former dean was Cristina Gonzalez.

R. Ariel Gomez is Vice President for Research and Graduate Studies at the University of Virginia.

Cristina Gonzalez, former member of the CGS Board of Directors and Chair of the CGS Minorities Committee, is now the Senior Advisor to the Chancellor at the University of California, Davis.

Maureen Grasso is Dean of the Graduate School at the University of Georgia. She replaces Gordhan Patel.

Howard Grimes is Interim Dean of the Graduate School at Washington State University. The former dean was Karen T. DePauw.

Robert Grover is Interim Dean of Graduate Studies and Lifelong Learning at Emporia State University. He replaces Timothy Downs.

Ann Hallum is Acting Dean of the Graduate Division at San Francisco State University. The former dean is Paul Fonteyn.

Charles J. Hardy is Interim Dean, Graduate Studies, at Georgia Southern University. G. Lane Van Tassell was the former dean.

Howard Johnson is Executive Vice Provost for Academic Affairs at Syracuse University.

Linda Lacey is Dean of the Graduate School at New Mexico State University. She replaces Roy C. Rodriguez.

Merlin P. Lawson, Dean of Graduate Studies at the University of Nebraska-Lincoln for the past 10 years, was recently awarded the title of Dean Emeritus. Lawson will be returning to the faculty.

Alicia V. Linzey is Interim Dean, Graduate School and Research, at Indiana University of Pennsylvania. The former dean was James Petersen.

James Lorens is Interim Dean of the Graduate School at Southern University A&M College. The former dean was Kweku Bentil.

Merle S. Olson is Dean of the Graduate School of Biomedical Sciences at The University of Texas Health Science Center at San Antonio.

Prem S. Paul is Vice Chancellor for Research and Dean of Graduate Studies at the University of Nebraska-Lincoln. The former dean was Merlin P. Lawson.

Paula Peinovich is Executive Vice President for Academic Affairs and Provost at Walden University.

Duncan M. Perry is Dean, Graduate School and Director of Research, at the University of Scranton. The former dean was Rose Sebastianelli.

James C. Petersen is Dean, Graduate School, at the University of North Carolina, Greensboro. He replaces Maureen Grasso.

Tom Reynolds has been appointed Associate Provost for Graduate Programs and Dean of the Graduate School at the University of North Carolina, Charlotte.

Robert D. Roer is Dean of the Graduate School at the University of North Carolina at Wilmington. He replaces Neil Hadley.

William B. Russel is Dean, Graduate School, at Princeton University. He replaces John Wilson.

Janis Sanchez is Acting Associate Vice President for Graduate Studies at Old Dominion University. She replaces Carole Seyfrit.

Carole L. Seyfrit is Dean, College of Graduate and Extended Education, at Radford University. The former dean was Gary Ellerman.

Paul Tschetter is Interim Dean of the Graduate School at East Carolina University. The former dean was Thomas Feldbush.

Cheryl Moen Vermey is Dean of Graduate Studies and Extended Education at West Chester University. She replaces Gopal Sankaran.

Judith Walker de Felix is Associate Vice Chancellor for Academic Affairs and Dean of the Graduate School at the University of Missouri - Saint Louis. The former dean was Nasser Arshadi.

Joan Warrington has retired from Southern Illinois University at Edwardsville.

Johanna W. Watson is Assistant Dean for Enrollment Management at the University of North Carolina, Charlotte.

Ellen M. Weissinger has recently been named Executive Associate Dean of Graduate Studies at the University of Nebraska-Lincoln.

The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and Comments about the *Communicator* may be directed to the editor by phone at 202-223-3791 ext. 101 or by e-mail at mdrake@cgs.nche.edu.

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The National Science Foundation's Graduate Research Fellowship Program[1]

by Allan D. Headley[2] and Eric J. Sheppard, Program Directors for the Graduate Research Fellowship Program, National Science Foundation

The National Science Foundation (NSF) awards approximately 900 Graduate Research Fellowships annually to support individuals pursuing graduate work in the sciences, mathematics and engineering.[3] Fellows of the Graduate Research Fellowship Program (GRFP), through the careers they ultimately choose, contribute to the strength and diversity of the nation's scientific and engineering enterprise. Graduate schools across the nation actively seek NSF Fellows for their graduate programs, and past Graduate Research Fellows have made valuable contributions to our nation as leaders in academia, industry and government.

Graduate Research Fellowships are distinct from grants that are designed to underwrite specific research or project development. These awards are flexible, giving Fellows the opportunity to attend most accredited graduate institutions in the United States or abroad. Fellows are eligible to use up to three years of support within a five-year period and can apply for a travel allowance, access to supercomputer usage, and a Facilitation Award for Scientists and Engineers with Disabilities. All active NSF Fellows will receive 12-month stipends of $21,500 (prorated at $1,791/month for lesser periods) and a cost of education allowance of $10,500 for the 2002-2003 academic year. GRFP stipends have steadily increased over the years, and it is anticipated that there will be an increase over the present level for next year. The 2003 GRFP competition opened on August 2, 2002, and the deadline for accepting applications is November 7, 2002.[4]

U.S. citizens and permanent residents, who are college seniors or in the early stages of their graduate education, are eligible to apply for these fellowships. The continued increase in applications from groups under-represented in science and engineering and from students from a wider cross-section of universities and colleges are goals of the program. Applications are reviewed based on NSF's two merit review criteria: intellectual merit and broader impacts. Reviewers will consider the intellectual merit of the application, particularly in the proposed plan of research, previous research experience, academic record, reference letters and GRE scores. Reviewers will also evaluate the broader impacts merit of the application, such as contributions that effectively integrate research and education at all levels, broaden participation, enhance scientific and technical understanding, or otherwise benefit society. The review of applications for the 2003 competition will take place in February and awards will be announced in late March 2003.

There are two other major programs of the Division of Graduate Education at the National Science Foundation that support graduate students, faculty and institutions: the Integrative Graduate Education and Research Traineeship Program (IGERT), and the NSF Graduate Teaching Fellows in K-12 Education (GK-12). The IGERT program places high priority on the preparation of Ph.D.s who are equipped with a multidisciplinary background and the technical, professional and personal skills essential to address the career demands of the future.[5] The GK-12 program provides opportunities for highly qualified graduate and advanced undergraduate students to serve as science, mathematics, engineering, and technology resources in the Nation's K-12 schools.[6] The programs of the Division of Graduate Education continue to evolve, and graduate deans and other university/college administrators have played an integral role in the continued success of these programs. We also encourage faculty members to learn more about these programs, and we are continually seeking dedicated and qualified faculty members to participate in the review process. Your dissemination of information about these programs throughout your campuses and your continued encouragement of student and faculty participation in these programs are appreciated.[7] ❖

Notes

[1] Any views expressed are those of the authors and not necessarily those of the National Science Board or the National Science Foundation.

[2] On leave from Texas Tech University, where he is an Associate Dean of the Graduate School and a Professor of Chemistry.

[3] Visit www.nsf.gov/pubs/2002/nsf02150/nsf02150.pdf for approved fields of study.

[4] For more information, applicants can visit www.nsf.gov/grfp or call toll-free, (866) 353-0905.

[5] Visit www.nsf.gov/home/crssprgm/igert/start.htm for more information.

[6] Visit www.ehr.nsf.gov/dge/programs/gk12/ for more information.

[7] Call (703) 292-8630 for more information about the programs of the Division of Graduate Education.

NEWS FROM ONE DUPONT CIRCLE

CGS welcomes two new staff members. Daniel Denecke is the new Program Manager for the Preparing Future Faculty Program at CGS. Daniel recently completed his Ph.D. in English at Johns Hopkins University. Daniel replaces Tracie M. Fellers, who has accepted a position as Assistant Professor of English at North Carolina A&T University. Gerald Bolden is the new Office Manager and Finance Assistant at CGS. Gerald replaces Veronica Scales, who is now working at the D.C. Nurses Association as its Accountant and Membership Specialist.

Ph.D.s - Ten Years Later: Selected Results

(continued from page 2)

Reasons for Not Working

Only 2.5% of Ph.D. scientists and engineers were not in the paid work force in 1995. Reasons for this included unemployment and fringe employment[18] (0.3% of the population), being between jobs, having a medical disability, being retired and being a caretaker. Women biochemists who were not in the work force were especially likely to be home with children. Some of these female scientists explained that the organization of work in biochemistry labs had forced them to choose, at least while their children were young, between being mothers and working in biochemistry fulltime.

Summary

The findings of *Ph.D.s Ten Years Later* show very positive career outcomes and very low unemployment rates for science and engineering Ph.D.s. But, they also point to problem areas such as the long period of time biochemists spend in mandatory postdoctoral appointments, the need to prepare doctoral students for work in various employment sectors, and the difficulty of combining a family with a science career.

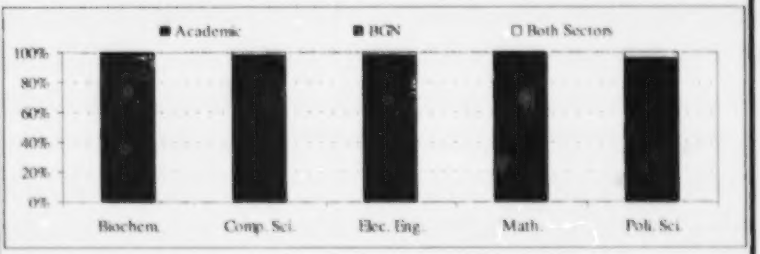
Taking a postdoctoral position after completion of the doctorate and before moving into more permanent employment has become the norm in biochemistry whether subsequent employment is in the academic or business, government, or non-profit sectors.

Biochemists not only had the largest proportions in postdoctoral appointments as compared to the other four science fields, they also spent the longest average time in such positions. The educational and training value of such long postdocs will need to be carefully examined in order to prevent postdoctoral positions from becoming a holding pattern.

About 70% of the science and engineering Ph.D. recipients who entered the academic sector were tenured faculty in 1995, except in biochemistry. The effect of the extended stay in postdoctoral training in biochemistry resulted in just 30% tenured faculty in 1995 and another 34% being still tenure-track assistant professors ten to thirteen years after degree completion.

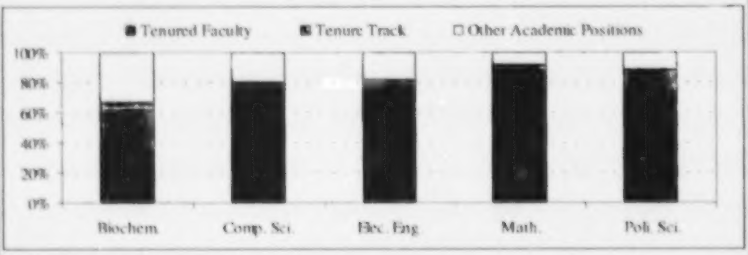
continued on page 11

FIGURE 1: *Employment Sector by Field, Dec. 1995*



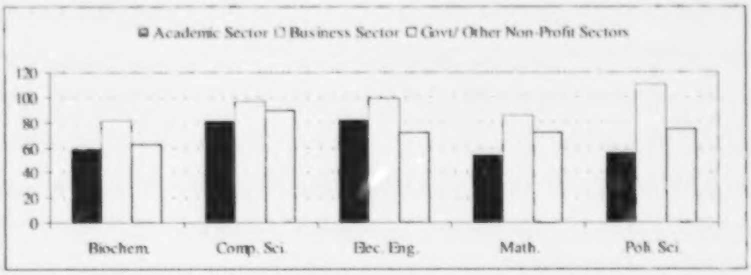
Note: Excludes those not in the workforce (2.5%) and those indicating no sector (5.5%) – Total (8%)

FIGURE 2 **: Academic Employment by Field, Dec. 1995**



Source: "Ph.D.s – 10 Years Later" Study, UCB Graduate Division

FIGURE 3 **: Total Annual Median Salary by Field and Sector: (Dec 1995)**



Note: Total annual salary reflects pre-tax income, including bonuses, overtime, summer-time teaching or research and pay for other extra activities

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RETURN OF THE MASTERS

(continued from page 6)

[4] Golde, Chris M. and Dore, Timothy M. *At Cross Purposes: What the experience of today's doctoral students reveal about doctoral education*, January 2001, p. 34.

[5] *Ibid.*, p.33.

[6] *Ibid.*, p. 29.

[7] Lovitts, Barbara, and Cary Nelson, " A Hidden Crisis in Graduate Education: Attrition from Ph.D. Programs," *Academe*, November-December 2000, p. 49

[8] *Ibid.*, p. 30.

[9] Barbara E. Lovitts, *Leaving the Ivory Tower*, Rowman & Littlefield Publishers, Inc., Boston and London, 2001, p. 51.

[10] *Ibid.* p. 37

[11] John L. Snell, "The Master's Degree, " in *Graduate Education Today*, Everett Walters ed., American Council on Education, Washington, D.C., 1965, pp. 81-2.

[12] Syverson, Peter, "Data Sources: The New American Graduate Student, Part II," *Communicator*, June 2002.

[13] Lovitts, *op. cit.*, p. 177.

[14] Golde and Dore, *op. cit.*, p. 30.

[15] Lovitts and Nelson, *op. cit.*, p. 45.

[16] Golde and Dore, *op. cit.* , p. 32.

[17] John L. Snell, *op. cit.*, p. 82.

[18] Clifton Conrad, Jennifer Grant Haworth, and Susan Bolyard Miller, *A Silent Success: Master's Education in the United States*, The Johns Hopkins University Press, Baltimore and London, 1993, p. 11.

[19] Actually, this should have been the title of the talk. However, Return of the Masters sounds more interesting!

[20] Stephen H. Spurr, *Academic Degree Structures: Innovative Approaches*, The Carnegie Commission on Higher Education, McGraw-Hill Book Company, New York, 1970, p. 80.

Ph.D.s - Ten Years Later: Selected Results

(continued from page 10)

The fact that more than half of the Ph.D.s in biochemistry, computer science, and electrical engineering were employed outside academia needs to be reflected in doctoral curricula in these fields. Doctoral programs should recognize the fact that their graduates become professionals in a variety of employment sectors.

The percentage of Ph.D. scientists and engineers who were not in the paid workforce in 1995 was extremely small. Hardly anyone was involuntarily out of work and seeking employment. However, many women commented on the difficulty of combining the raising of children with being a lab-based scientist. As one woman interviewed for the study succinctly put it:

"If academia wants more women in science, engineering, and mathematics, they need to be more supportive of women with children. Academia cannot say, 'It's okay to have children as long as it doesn't inconvenience us.' For many women a doctoral education doesn't help or is not of value if they cannot get a job that will allow them time out for kids or to arrange teaching schedules so they can take kids to school in the morning."

Thus, while many federal agencies have focused on increasing the number of women Ph.D.s, it is clear that support for men and women with child care responsibilities needs to be extended throughout the doctoral and postdoctoral years--and beyond to make sure that scientists are not forced to leave their chosen professional path because of the difficulty of combining a family with a career in science. ❖

Notes

[1] Many thanks to Elizabeth Rudd for her excellent work on this article.

[2] This survey was funded by the Mellon Foundation and selected analysis by the National Science Foundation.

[3] At some universities these two programs exist in one department; in others, they are two separate entities.

[4] In order to capture long-term career outcomes, we surveyed doctorate recipients at least 10 years after they earned the Ph.D. The book on the complete finding of the *Ph.D.s - Ten Years Later* survey will examine multiple relationships between graduate school education and career outcomes, such as the relationship between evaluation of the usefulness of the Ph.D. and respondents' employment sector, "current" job satisfaction, and the impact of family and marital status on objective and subjective measures of career outcomes among Ph.D. recipients in this study. Existing publications include an article examining postdoctoral appointments, *Science* 285 (1999) pp. 1533-1535; and an article about career outcomes of English Ph.D.s, referred to later.

[5] This response rate is calculated by taking all awarded Ph.D.s not just the ones we were able to locate. The response rate when calculated only by those we located was 70% for domestic and 63% for international PhDs.

[6] Results for English Ph.D.s are reported in "From Rumors to Facts: Career Outcomes of English Ph.D.s" *Communicator* 32(7) Special Issue Fall, 1999, reprinted in Association of the Department of English, *Bulletin* 124 (2000): 43-55.

[7] These cover around 95% of the Ph.D.s awarded in our six fields in the U.S. for academic years 1983-1985. The weighting takes into account both the sampling weights (representativeness of our sample of 61 institutions) and the weighting adjustment for survey nonresponse (regression model based on demographic characteristics). A full description of the methodology will appear in the forthcoming book of on the study.

[8] The SDR comparison group differs from the *Ph.D.s - Ten Years Later* sample in two important ways. First, the SDR definitions of fields do not exactly match the definition used for the *Ph.D.s - Ten Years Later* study. The correspondence between the *Ph.D.s - Ten Years* Later fields (and the SDR fields) was as follows: biochemistry (biological sciences: biochemists and biophysicists), computer science (computer science and information sciences, and computer and systems engineering), electrical engineering (electrical and related engineering fields), mathematics (mathematical sciences) and political science (political science and related fields, excluding public policy studies). Second, the SDR provides data on only those who were working within the United States at the time of the survey, while the *Ph.D.s - Ten Years Later* study also includes data on Ph.D.s working outside the United States.

[9] For more meaningful comparison with the SDR data, a special subset of the *Ph.D.s - Ten Years* Later sample, containing only those who were working in the United States at the end of 1995, was used for the purpose of significance testing only.

[10] Comparing those who were employed in the United States in 1995, the mathematicians in the SDR data reported a significantly lower percentage ($p=.05$) of postdoctoral appointments after their Ph.D., as well as a significantly shorter overall postdoctoral time ($p=.05$), than the mathematicians in the *Ph.D.s-Ten Years Later* sample. The bioscientists in the SDR data reported a significantly smaller number of postdoctoral appointments ($p=.05$) than the biochemists in the *Ph.D.'s - Ten Years Later* sample.

[11] Academic institutions are: Ph.D. granting university, non-Ph.D. granting college or university, two-year college or community college, university hospital, national laboratory. BGN organizations are: business or industry, state or local government agency, federal government agency, international agency, military organization, non-university hospital or clinic, foundation or other non-profit.

[12] The distribution of the SDR comparison group across sectors in 1995 was similar: most respondents in mathematical sciences and political science and related fields worked in the academic sector and more than half of those in biological sciences, computer and information sciences and electrical and related engineering fields worked in business, government, or non-profit organizations. The respondents from political science and related fields in the SDR data were significantly more likely ($p=.05$) to be working in the academic sector than the political scientists in the *Ph.D.s-Ten Years Later* sample.

[13] Those reporting that they were *simultaneously* holding at least one job in the academic sector and one job in the BGN sector constitute the category "Both Sectors." Tenured or tenure-track faculty who work in both sectors are included in the academic sector and excluded from the category "both."

[14] If we focus on only those employed in "Carnegie classified" academic institutions the overall percentage of Ph.D.s working in doctorate-granting institutions (Carnegie classified 11-14) was comparable to the Ph.D.s in the SDR data and those in the *Ph.D.s-Ten Years Later* sample, at around two-thirds. However, the biological scientists in the SDR data were significantly less likely to be at doctorate-granting institutions ($p=.05$) than the biochemists in the *Ph.D.-Ten Years Later* sample. Conversely, the computer scientists in the SDR data were significantly more likely to be in a doctorate-granting institution ($p=.05$) than the computer scientists in the *Ph.D.s-Ten Years Later* sample.

[15] Comparing those employed in the academic sector in the United States in 1995, the biological scientists in the SDR data were significantly more likely to be in tenure-track positions ($p=.05$) and less likely to be in tenured positions ($p=.05$), than the biochemists in the Ph.D.s - Ten Years Later sample.

[16] No direct comparison with the SDR data for the total annual salary in 1995 was made since the SDR data provide only the basic (pre-tax income, excluding bonuses, overtime, summer teaching or research and pay for other extra activities) annual salary for 1995.

[17] Because the basic salary in the academic sector in most cases is for nine months only, as opposed to 12 months in the BGN sector, we asked respondents to include all income.

[18] Fringe employment refers to those earning $5,000 a year or less.

Items of Interest

The **National Science Board**, the governing board of the National Science Foundation, has released the publication, *Federal Research Resources: A Process for Setting Priorities*. The electronic version of the report can be accessed at: www.nsf.gov/cgi-bin/getpub?nsb01156. Additional paper copies may be ordered through the NSF website at: www.nsf.gov/home/orderpub.htm or by phone: 703-292-5111.

The **Council for Advancement and Support of Education** (CASE) has recently published the book, *Competing for Students, Money and Reputation: Marketing the Academy in the 21st Century* by Larry D. Lauer. For more information visit www.case.org/books.

The **Centers for Disease Control** and Prevention's (CDC) National Center for Health Statistics (NCHS) and the Academy for Health Services Research and Health Policy are seeking applicants for the second cycle of the NCHS/Academy Health Policy Fellowship. The application deadline is Friday, January 10, 2003. For more information regarding the Fellowship visit www.academyhealth.org/nchs or email the Academy at nchs@ahsrhp.org.

The **Canadian Association of Graduate Studies** (CAGS) has published a report of its 2001 Conference entitled "Brave New Worlds, Graduate Education for the 21st Century." For more information contact CAGS at 613-562-5231, www.cags.ca or cags@uottawa.ca.

The **American Association of University Women** (AAUW) announces its Fellowships for Women for 2003-2004. Information and applications are available from AAUW at 319-337-1716 ext. 143 or www.aauw.org/3000/fdnfelgra/selectprof.html.

CGS Summer Workshop & New Deans Institute a Huge Success!!!

Over 165 members of the CGS community met in Portland, Oregon, this July for the CGS New Deans Institute and Summer Workshop. CGS would like to thank its Board and other representatives for serving as program faculty and was pleased to welcome so many new participants to the meeting. We hope to see many of these attendees at the CGS Annual Meeting this December, as well as at the CGS Summer Workshop and New Deans Institute in Savannah, Georgia, at the Hyatt Regency Savannah from July 12-16, 2003.

In addition, CGS would like to especially thank our meeting's hosts and sponsors:

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CGS Communicator

Volume XXXV, Number 8 October 2002

Report of the PFF Complementarity Meeting

*Prepared by Daniel Denecke, PFF Program Manager, and the PFF National Office Staff at CGS**

The PFF Complementarity Meeting was an activity of Preparing Future Faculty in the Sciences and Mathematics Program (PFF3), supported by a grant from the Division of Undergraduate Education of the NSF. Myles Boylan, the PFF3 program officer and lead program director of NSF's Division of Undergraduate Education, encouraged us to hold this meeting as a forum for discussion among NSF, CGS and other stakeholders about the strengths, weaknesses, and opportunities presented after a decade of PFF programs and after nearly four years of the current project. The meeting participants included Debra Stewart, president of CGS; graduate deans on the Board of Directors of CGS; leaders of major initiatives concerning graduate education; Myles Boylan, the PFF3 program officer at NSF; other program officers from NSF; the head of the NRSA training grants at NIH; directors of disciplinary societies who are involved in PFF3; PFF3 program directors; and the P.I.s, program manager, and program assistant for PFF3. This report summarizes the results of the meeting.

Preparing Future Faculty programs are focused on the professional development of doctoral students who seek faculty careers. The benefits of PFF extend well beyond doctoral degree candidates, however, to undergraduate and K-12 education. The national imperative to increase the knowledge and sustain the interest of young people in the sciences and mathematics is affected greatly by the quality of teachers; college and university faculty "teach the teachers" and have a decisive impact on the career choices of their students. NSF recognized this when it funded PFF3.

PFF is a collaboration between a research university, where students are prepared for faculty positions, and partner institutions representing an array of academic settings at which graduates may become faculty members. PFF broadens horizons and give students the power to teach, but it also sensitizes faculty to issues of pedagogy and empowers them to focus on these issues. It sets the stage for a more broad and fertile discussion of the academy, the roles and responsibilities of faculty, and the professional development needs of students aspiring to academic careers. These discussions are important to help students to think of themselves not only as future faculty, but also as future scientists and mathematicians.

In addition, PFF benefits the institutions by serving as a powerful recruiting tool. Graduate students now encourage prospective doctoral degree candidates to search out institutions that have PFF programs because participation in these programs makes these candidates more attractive to a variety of hiring institutions if and when they decide to seek faculty positions. Research universities also benefit because some of the most important teaching innovations are being practiced at the partner institutions, and the PFF program creates opportunities for dialogue and change by promoting a diversity of teaching models and practices at all of the institutions involved.

Preparing Future *Faculty*

Most agreed that one of the greatest strengths of PFF is name recognition. As David Chapman, dean of the graduate school at the University of Utah, said, "The great strength of PFF is that it exists. It has become a sort of brand name, and that is a sign of its efficacy." On the other hand, the argument was made that the program's name reflects a weakness, that focusing on preparing future faculty was too limited, and that the program should be expanded to advance a more broadly conceived professional development agenda.

The group generally agreed with this, but the practical fact is that the PFF program, with its focus on faculty development, can be supported by NSF's Division of Undergraduate Education because of its mission and its relevance to the national imperative to improve science and mathematics education for K-16. In short, funding for PFF depends upon its faculty development focus.

Many features of a PFF program, however, are relevant to overall professional development for graduate students, and institutions have easily expanded programs that started as PFF into preparing future professional programs (PFP). The aims of faculty and professional development are complementary, as there is significant overlap in workshop and seminar content for PFF and PFP programs. Conditions may be evolving nationally to permit future NSF support for professional development of graduate students.

Group members discussed a number of specific opportunities for expanding the scope of PFF, in ways that would address the need for broader professional development programs without compromising the program's focus on faculty development, including:

- Exposure to partnerships with industry and workforce development
- Expanded outreach component
- Enhanced research component
- More directed appeal to master's degree and postdoctoral students
- More explicit diversity strategy
- Increased involvement of international students

Industry. The argument was made that PFF needed more exposure to connecting graduates with industry and other activities external to the university. Students need to know what other opportunities exist and to have external contacts. Even if graduate students become college faculty they will need this information and the contacts to help the undergraduate students they teach and advise, most of whom will not go on to pursue Ph.D.s. The conversation within PFF programs therefore needs to be broadened to include important, discipline-specific, external factors, which would make PFF

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PFF Complementarity Meeting

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programs particularly appealing to students in engineering, mathematics and computer science.

Outreach. PFF programs would benefit from an expanded outreach component. There is increasing pressure on faculty to be engaged outside the walls of the university, in outreach to the community, and, in particular, to get involved in K-12 education. New faculty need to understand this expectation and to have had some prior exposure if they are to be truly prepared.

Research. Many departments that train Ph.D.s do not have PFF programs. One source of resistance in these departments is the concern that PFF programs take time away from students' research.

Wyn Jennings, program director of Graduate Research Traineeships at NSF, pointed out that it is possible to maintain the focus of PFF while creating satellite programs that address these concerns. IGERT programs, for example, obviate some of the resistance to student participation in professional development programs by offering intensive short courses and special, focused workshops. These could be most efficiently managed by being housed in a central area of the university, such as a teaching and learning center, the graduate school, or presented as a regional off-campus event.

Thomas Strekas, acting dean of the division of mathematics and natural sciences at Queens College-CUNY, spoke of the persistent notion, in chemistry and biology in particular, that PFF is anti-research. Group members suggested a number of ways to enhance the research component of PFF while taking advantage of opportunities for complementarity between programs and initiatives. George Walker, vice president for research and dean of the graduate school, Indiana University, expressed the matter well when he said that one of the gaps was not only providing students with exposure and experience in the areas of teaching and service, "but enough research so that you don't become a Doctor of Widgets instead of a Doctor of Philosophy."

When preparing future faculty, then, it is important to expose students to research as well as to faculty and pedagogical experiences in a variety of settings. Students generally lack exposure to and information about ethics and responsible conduct, risk taking, defining a problem, and other philosophical aspects of academic research, and PFF might be a natural resource for tackling such topics. Other suggestions for enhancing the research component of PFF included using PFF students to present seminars on research and research talks at professional meetings, and encouraging more of a two-way arrangement in PFF partnerships. PFF programs could work to provide more research and career opportunities to partner students and faculty, and not merely enhance the portfolios of graduate students at anchor institutions, thereby providing added benefits for faculty at partner institutions.

Master's degree and postdoctoral participants. PFF's current emphasis on doctoral students represents a missed opportunity to reach out to more postdoctorates and master's students, who will make up the majority of community college faculty. Despite its focus on doctoral candidates, PFF already serves many master's and postdoctoral students. Making a more explicit appeal to such students would have a direct influence on undergraduate education at research universities, where master's students and postdoctorates often serve as teaching assistants, and at community colleges, where many faculty hold master's degrees.

Diversity. What kinds of efforts are being made to ensure that the PFF cohort is more diverse? The argument was made that PFF programs can be very attractive to minority students, without any specific attempt to bring minorities in, because what they do often has appeal for minority students. For example, Carol Lynch, vice chancellor for research and dean of the graduate school, University of Colorado at Boulder, noted that many programs have a "pedagogies for a diverse population" component that will make participation more attractive to minority students. In the words of Roosevelt Johnson, program director of Alliances for Graduate Education and the Professoriate (AGEP) at NSF, PFF should be more explicit about inclusiveness and diversity. "The idea of a program that concentrates on preparation for the professoriate is attractive to me," Dr. Johnson said, "because people can't choose what they don't know about. The real value is that mentors open you up to opportunities." Other meeting participants agreed that PFF programs could take better advantage of participating minority students as role models. Emulation plays a very powerful role in opening up academic and career opportunities to minority students.

International students. What exactly is the benefit of participating in PFF programs for international students? Are the national initiatives for graduate education doing enough for international students? Tom Rishel, associate executive director of the Mathematical Association of America, said that at Cornell, PFF has drawn about 80% of the US students, but only about 20% of the international students. Jody Nyquist, associate dean of the graduate school at the University of Washington, advised that the national initiatives need to be more sensitive to their needs and their models, adding that the international component of PFF is a real opportunity lost.

Preparing Future Faculty

How do faculty preparation programs know what hiring institutions are looking for in the faculty they hire in the future, and how are PFF programs responding? How do these programs anticipate and incorporate preparation for the needs of the faculty of the future? As Samuel Rankin, associate executive director of the American Mathematical Society, said, "we don't want to prepare faculty for yesterday or even today." Preparing future faculty requires all stakeholders to be involved in thinking outside the box, beyond the status quo--and to look at the desired attributes of tomorrow's faculty.

The difficulty of preparing faculty for the future is compounded by the fact that there is no uniform requirement for new faculty. Specific requirements depend upon the hiring institution and its local (political) environment. What makes a faculty member successful depends upon the institution. Maintaining the current local flexibility of PFF, and keeping partner institutions involved in the programs, are very important in this context.

Assessment

The question of whether PFF is actually preparing future faculty should be central to any assessment plan that is implemented. One of the weaknesses of the current program is that it doesn't have a "scanning mechanism" or quality control component. There is no measure that allows people to look ahead and see what is coming. PFF needs to have such a measure and needs to have incentives for institutions and departments to periodically assess their PFF programs for relevance. PFF has a reputation among

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The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and comments about the *Communicator* may be directed to the Council of Graduate Schools.

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Socialization of Graduate and Professional Students in Higher Education: A Perilous Passage?

Book Review by Suzanne Ortega, Vice Provost for Advanced Studies and Dean of the Graduate School, University of Missouri–Columbia (MU)

Socialization of Graduate and Professional Students
in Higher Education: A Perilous Passage?
By John C. Weidman, Darla J. Twale, and Elizabeth Leahy Stein
(ASHE-ERIC Higher Education Report Volume 28, Number 3)

Socialization of Graduate and Professional Students in Higher Education: A Perilous Passage? adds to the growing body of literature and research that takes as its explicit focus both the processes and the outcomes of graduate education. Studies like those of Golde and Dore (2001), Lovitts (2001), Nerad and Cerny (1999), and the recent survey by the National Association of Graduate and Professional Students, have focused on providing empirical evidence on the sources of satisfaction and dissatisfaction among individual graduate students. In contrast, the work of Jodi Nyquist in the Re-envisioning the Ph.D. program and of DeNeef (2002), Adams (2002), and Applegate (2002), summarize results of the first years of the Preparing Future Faculty initiative and focus on what future employers are looking for in our newly minted doctoral recipients so that we can design programs to better meet those expectations. The main contribution that Weidman, Twale and Stein make to the literature is the development of a conceptual framework that provides a useful way of organizing both what we now know from research and what we are now doing in practice.

Using literature derived from the study of adult socialization and career development, Weidman et al. propose a new, more dynamic process model of graduate socialization that they overlay on a more linear developmental stage approach to socialization, more frequently taken in the literature. Specifically, the authors argue that the core purposes of graduate education--knowledge acquisition, investment and involvement--take place within a university context that is bounded both by its own institutional culture and by the processes necessary to socialization--interaction, integration, and learning. The authors argue that these core elements of the graduate socialization experience can only be understood when they are seen as embedded in a larger social system that includes prospective students with diverse background predispositions, the professional practice and professional association community, and the personal communities of family and friends. Furthermore, they argue that the recipient of graduate socialization, i.e. the novice professional practitioner, him- or herself, becomes an important part of a feedback loop that, in turn, can change the nature of the graduate education system.

After outlining this model, the authors go on to trace out how some of the major social changes of our time are impacting or will impact the way graduate educators go about their business. The reader will recognize many of the same common themes and elements identified by Kay Kohl and Jules LaPidus in their volume on PostBaccalaureate Futures (2000) (e.g., the impact and use of technology, diversity, globalization and international students). Next, the authors assess how the structure and culture of programs, departments, and institutions may differ. They then conclude by tracing out some of the implications of both common core processes and institutional differences for "easing the perilous passage."

In reading this monograph, I was struck by two things. First, it was astonishing to me that, despite the spate of extremely important recent empirical studies of graduate education, most of what we know about graduate education still derives from a literature on undergraduate students, that in many cases, is 20 or more years old; clearly more scholarly attention to graduate education processes and graduate student learning and career outcomes is warranted. Second, in reading the monograph I was reminded of an old light bulb joke. It goes like this: Q.: How many sociologists does it take to change a light bulb. A.: None. It's not the light bulb; it's the system that needs changing. I think I found the joke particularly funny the first time I heard it (actually, I still do) because, at the time, I was a very young assistant professor of sociology, teaching my very first Social Problems course, and trying to explain to my students that despite the fact that unequal or unfair social systems can and do produce painful individual outcomes, there also are a number of important feedback loops that can and do allow us to change and improve those very same systems. The greatest value of the Weidman et. al. monograph may in fact be its development of a model of the graduate education system that clearly identifies where the feedback loops occur and give us some ideas about where the critical intervention points may be. It is interesting that some of our most successful re-envisioning, re-thinking, re-sponsive doctorate projects have anticipated many of the changes that the model might predict: the creation of a team models of graduate mentoring, the importance of informal socialization and the making explicit of implicit norms and values, the fostering of robust peer networks, and the development of collaborative learning and research environments. ❖

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Suzanne Ortega is the author or co-author of numerous journal articles and an introductory sociology text, now in its fifth edition. An award-winning teacher, Ortega has been the principal investigator or co-investigator on grants totaling more than $6 million. Among her most important accomplishments is the work she has done to secure funding for and develop successful Ronald E. McNair Postbaccalaurate Degree, Preparing Future Faculty, and Diversity Enhancement programs. In addition to work focused on creating a more inclusive pipeline into graduate school and the professoriate, Dr. Ortega serves on the American Sociological Association (ASA) Advisory Board for Preparing Future Faculty, the ASA Executive Office and Budget Committee, on the Executive Committees of the NASULGC Council on Research Policy and Graduate Education, the Midwest Association of Graduate Schools, and the CGS Advisory Committee on Minorities.

Federal Relations Update

by Lance Pressl, Vice President for Federal Relations and Public Affairs

As the summer months come to a close, the heat and activity in Washington intensify on a number of critical fronts for the CGS community. The following is a brief overview of several key issues CGS Federal Relations is covering.

Student and Exchange Visitor Information System (SEVIS)

Despite cautionary warnings from the higher education community, the Immigration and Naturalization Service (INS) continues to maintain that the original deadline of January 30, 2003, for implementation of the tracking system will be met. CGS was one of the signatories of written testimony given before the U.S. House Subcommittee on Immigration, Border Security and Claims on September 18, 2002. The testimony outlined a number of the key issues that remain problematic for meeting the original deadline. These include:

- The regulations governing SEVIS and international students ("F" and "M") visas will not be published in final form until mid-October.
- The regulations governing SEVIS and exchange visitors ("J" visas) have not been published in draft form and are not expected to be in effect until after January 30, 2003.
- The regulations detailing what schools must do to become "re-certified" to issue I-20s have not been published.
- "Batch processing," a key element of SEVIS for schools or exchange programs with more than 200 students or visitors, will not be ready for operational testing until mid-October.
- The fee amount that students must pay to be registered in the SEVIS system and the procedure for collecting the fee remain unsettled.
- INS has limited outreach plans for training university personnel on the use of the system.
- Adding to the complexity, the State Department has initiated a temporary system (ISEAS) to monitor international students and exchange visitors on a preliminary basis.

Visa Issues

CGS Federal Relations attended a special briefing on the changes to the visa process at the State Department. The Department acknowledged that the new security advisories that have been placed into effect since September 11 have slowed the entire process down. Approximately 25,000 visa requests have been sent to Washington, DC, for further review. This review, according to the Department, is causing a longer than normal waiting time for this subset of applicants, but steps are being taken to speed up the review process. Of the ten million visa applications received in consular offices throughout the world, seven million have been granted while three million have been refused. A State Department official stated there has not been an increase in the overall rejection rate of visa applications since September 11. CGS Federal Relations took the opportunity to share with State Department officials the concerns expressed by many CGS members over the last few months about the delays and rejections of foreign students in their programs.

Social Security Numbers

The Social Security Administration (SSA) issued new regulations for issuing Social Security numbers to international students and exchange visitors. CGS Federal Relations and the higher education community have shared a number of the community's concerns with the SSA. Under the new procedures, SSA verifies an applicant's information through a database maintained by the Immigration and Naturalization Service before issuing a Social Security Number (SSN). This additional step may take as long as 12 weeks to process, depending on whether a match is made with the INS database. Officials at SSA said that institutions could issue temporary identification numbers to students and scholars while the agency considers those applications for a Social Security Number. The issuance of a university number, of course, does not allow students and other foreign visitors to conduct non-university affairs, such as opening a bank account, outside the university setting. It is expected that more pressure will be placed on SSA to further tighten the issuance of SSNs. During a U.S. House hearing in mid-September, Rep. J.D. Hayworth, R-AZ, said he would look for legislative means to crack down on universities that authorize SSNs for foreign students and then fail to employ those students, and Immigration Subcommittee Chairman George Gekas, R-PA, requested a "score card" on implementing the agency's new initiatives.

Interim Student and Exchange Authentication System (ISEAS)

The Enhanced Border Security and Visa Entry Reform Act of 2002, signed into law in May 2002, requires the State Department to create a temporary student and exchange visitor-tracking program that requires electronic information sharing between academic institutions and the federal government. The system will be discontinued after SEVIS is operational. ISEAS became effective on September 11, 2002, and requires institutions to provide to the State Department electronic evidence of documentation of the alien's acceptance at the institution. Universities must manually enter information into a web page tracking system (www.iseas.state.gov) before applications for F, M and J visas can be reviewed. CGS Federal Relations met with State Department officials immediately prior to the implementation of ISEAS in an effort to share concerns and suggestions about communicating the ISEAS program to university officials. In the State Department's written announcement of ISEAS, the Department acknowledges that ISEAS has been implemented hastily, and that the Department is "devising back-up procedures" to minimize delays in the visa issuance process.

Sensitive Subjects and National Security

The White House Office of Science and Technology Policy convened a meeting in late August to solicit advice on drafting guidelines restricting the publication of certain research and other government owned data that might be considered sensitive homeland security information. CGS dean Dr. Ron Atlas (University of Louisville), attended the White House meeting and continues to be an active participant in these ongoing discussions, as well as serving as an important resource to CGS Federal Relations.

Balancing national security with maintaining the free exchange of ideas and the ability to conduct and publish research, will continue to be an important goal of CGS Federal Relations.

Homeland Security Department Legislation

CGS Federal Relations is working with AAU and NASULGC to monitor the progress and content of two legislative proposals (H.R. 5005 and S. 2452) that provide the framework for the creation of the Department of Homeland Security. The two proposals are similar in many ways but do differ in a number of areas. Due to the manner in which the two bills were drafted, it is difficult to track the various provisions contained within the bills. Two "side-by-side" comparisons have been prepared to help in distinguishing the differences and similarities. The first was prepared by the Homeland Security Team of the Congressional Research Service and contains a thorough review of both bills. The second was prepared by AAU and NASULGC and it focuses primarily on the R&D provisions of the legislation. Please contact CGS Federal Relations for copies.

Both bills authorize an Under Secretary for Science and Technology and give the Under Secretary the responsibility for planning, coordination and consultation, as well as for extramural research and development programs. The Senate bill calls for the establishment of a new Security Advanced Research

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Data Sources: Latest Data from Disciplinary Societies Indicate Bull Market for New Ph.D.s

by Peter D. Syverson, Vice President for Research and Information Services

In the early 1990s a number of eminent researchers looked at the supply/demand situation for new Ph.D.s and saw a disturbing future--the confluence of an increase in student demand for undergraduate study (the baby boom echo) and a concentration of retirements of faculty hired during the halcyon era of the 1960s would shift the supply/demand situation from surplus to a shortage of new doctoral recipients.[1] This shortage would be substantial, with demand exceeding supply by between 1,000 and 5,000 Ph.D.s per year. According to these forecasts, the shift from surplus to shortage would occur near the turn of the century and we would now be in an era where, across nearly all fields, demand would be considerably higher than supply.

Employment status of physics Ph.D.s in the year following their degree

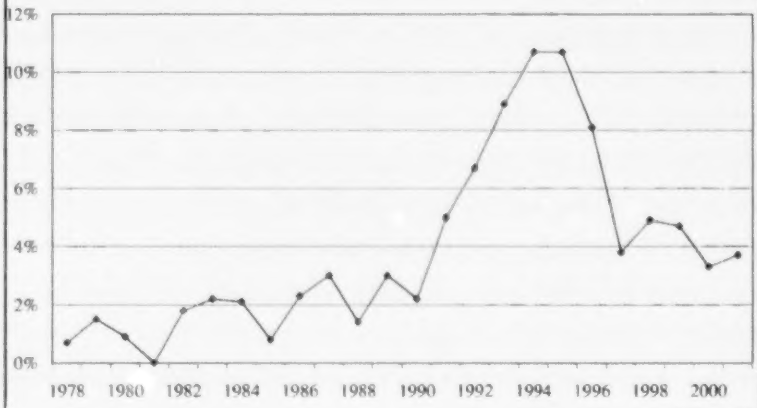
Employment status	Year of doctorate 1992	1993	1995	1996	1999
Postdoctoral appointment	58%	63%	53%	41%	43%
Potentially permanent position	23%	19%	38%	48%	49%
Temporary position	14%	12%	5%	7%	6%
Unemployed	5%	6%	4%	4%	2%

Source: AIP Initial Employment Reports, selected years

Table 1

This begs the question, then, what is happening now with job prospects for new Ph.D.s? What is their employment situation soon after receiving the doctorate? Two disciplinary societies, the American Institute of Physics (AIP)[2] and the American Mathematical Society[3], have recently published the results of their annual employment surveys of new doctorate recipients.

Percentage of new mathematics doctorates unemployed, 1978-2001



Source: AMS-IMS-MAA Annual Surveys

Figure 1

The AIP surveys physics-doctorate recipients about six months after the end of the academic year in which they received their degrees. Displayed in Table 1 are the results of the initial employment reports from 1992-2000 physics-Ph.D. recipients. Early in the 1990s, employment prospects for new physics doctorates were poor, with three-fifths taking postdoctoral appointments and just one-fifth in potentially permanent positions, mostly in the industrial and government sectors. The remaining one-fifth was either in temporary positions or unemployed. Since then, there has been a steady improvement in job prospects for physics Ph.D.s. One important aspect of that improvement has been the broadening of the sectors of employment that new physics Ph.D.s are now pursuing. This is reflected in the decreasing percentage of those taking postdoctoral appointments-the traditional path to academic employment-from 63% in 1993 to 43% for the class of 1999. Nearly one-half of physics Ph.D.s now characterize their position as potentially permanent and just 6% are in temporary positions with 2% unemployed. According to AIP, nearly 70% of physicists in the potentially-permanent category obtained employment in the private sector.

The improvement in the employment situation in mathematics has been even more dramatic (see Figure 1). The employment downturn in the early 1990s had a devastating impact on new mathematics Ph.D.s, with unemployment rates soaring past 10%. As in physics, initial employment prospects have improved in the latter years of the 1990s and now unemployment is under 4%.

More than one-half of new mathematics Ph.D.s find employment in the academic sector. In fact, that percentage increased from 1995-96 to 2000-01 as the academic labor market improved. More mathematics doctorate recipients found academic positions in the doctorate granting, baccalaureate and other (primarily two-year college) sectors. In addition, higher percentages of math doctorates found employment in government and private industry. As in physics, the most substantial change was the decrease in the percentage of new math doctorates still seeking employment in the fall following graduation.

Discussion

There is very good news in this pair of reports--there has been substantial improvement in the job prospects for new Ph.D.s following the dreadful job market of the early 1990s. One of the important themes here is the broadening of the job market for science Ph.D.s beyond academe to business and government. This is most evident in physics but to a lesser degree in mathematics as well.

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Employment status* of 1995-96 and 2000-01 doctorate recipients in the mathematical sciences

Table 2

Type of employer	1995-96	2000-01
Academic institution	42%	51%
Doctorate-granting	21%	26%
Master's-granting	6%	6%
Baccalaureate institution	9%	11%
Other academic	6%	9%
Research institute	2%	2%
Government	3%	5%
Business and industry	17%	18%
Non-U.S. employer	13%	9%
Still seeking employment	8%	3%
Not seeking employment	2%	2%
Unknown status	14%	9%

*Employment status in the fall of 1996 and 2001.

Source: AMS-IMS-MAA Annual Surveys, 1996 and 2001

PFF Complementarity Meeting

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some who have not been involved in it that there is a lot of feel-good "cheerleading," but no critical assessment of its programs. The success of campus programs must be assessed periodically, because assessment can demonstrate the crucial importance of the program to the university's core mission; this will maintain the university's involvement in the process. Getting the word out about the results of the program assessment, both within and outside the university, also is important, because a strong assessment makes it difficult for the university to pull back its commitment.

The group agreed that two forms of assessment are needed:

- A short-term, formative assessment process that would include lots of student input, and
- A long term, summative assessment that would measure whether the program is having an effect.

Short-term assessment. The experience of the IGERT program is that student input has been invaluable, and short-term feedback in particular, allows programs to rapidly respond. Asking the students how their PFF programs are doing, and repeating that question on a regular basis, is very important to program success.

Long-term assessment. The group agreed that participants' achievement of tenure track faculty positions is a strong indicator of the PFF program's success, and PFF should obtain records of placement. Evaluators should compare the academic quality and faculty placement of PFF alumni with a similar group without PFF experience. The anticipated outcome is that PFF experience increases the likelihood of a successful academic career, but this needs to be demonstrated. Documentation of such an outcome would certainly lead to increased student interest in PFF. Debra Stewart suggested that each institution that participates in PFF be asked to outline how PFF factors into its strategic plan. If the plan builds in program assessment and forward thinking, it is likely that the program will be institutionalized.

Institutionalization and Sustainability

What resources does a university require to support a program like PFF? Is there a need for "angels" on the outside to help fund these activities? Discussion of how to sustain and institutionalize PFF included the following topics:

- The location of the program site within the doctoral institution
- Administration funding, and other resource needs
- The need to enlist the full support of departments as well as disciplines, societies, and associations
- Opportunities for complementarity between initiatives and funding sources

Location. Participants felt that PFF programs must work with a centrally focused partner on campus, such as the office of teaching and learning and/or the graduate school. Departments add discipline-specific expertise. Often, relevant programs already exist in teaching and learning centers, and need only to be opened to graduate and postdoctoral students. Within the university such partnerships help to develop sustainable programs.

Resource needs. Myles Boylan commented that to be effective, programs need a critical mass to influence the institutional culture. Most participants agreed that considerable extra administrative effort is necessary to provide the mentoring experience for students, and extra resources are required to support the mentors; modest amounts of professional development funds are a good way to demonstrate the value of their efforts.

George Walker said there are long-term, middle-term, and short-term ways of thinking about resource needs. "In the long term, the universities need to think not only about their research infrastructure but also their educational infrastructure," which should be part of their overhead expenses. In the shorter term, what programs like PFF and the national initiatives on graduate education are trying to accomplish is "to change people's hearts, minds, and priorities. As foundations, private and public, we need to provide some of the funds. But from the beginning, there need to be matching funds. Universities can't be left entirely off the hook, because [faculty development] should be part of their mission."

These strategies are important in reducing the dependency of a program like PFF on the championship of a single administrator. The average five-year term of a person in upper administration in higher education could lead to a short-lived program if it were dependent on a personal champion; the next person in the position may well look for a different program to champion in order to make a distinctive impact on the institution.

Other critical resources include:

- Regularly scheduled PFF events, so that PFF is not perceived as an occasional activity, and
- Dividing PFF responsibilities within departments, so that the core supporters of the program do not burn out.

Enlisting support. A crucial part of the institutionalization of PFF concepts is faculty acceptance. As Mark Brenner, vice chancellor of research and graduate education, Indiana University-Purdue University Indianapolis, said, there have been "islands of success," but a lack of buy-in within whole departments. Meeting participants discussed the question of how to change the culture of departments, to bring about a critical change for the long-term acceptance of PFF. Incentives help to make these programs available. Some incentives are implicit, such as strategic questions on grant applications or annual reports (e.g., what are you doing for your students' professional development).

There was general, enthusiastic agreement that questions of this type are the single best thing, other than targeted money, that funders can do to help implement the recommendations of national initiatives and to encourage the institutionalization of PFF programs. If the renewal of valued programs for support of graduate students depends on the existence of professional development programs, the faculty will respond.

Most participants agreed that funding agencies are drivers in determining faculty behavior. Samuel Rankin advocated creating small incentive grants, with matching requirements, for which departments can apply. Such an approach could create a critical mass of participation within a discipline and momentum for broad incorporation.

Tom Rishel noted that the involvement of professional societies is important. PFF should be seen as part of a larger professional development emphasis. Rodney Taylor, associate vice chancellor of graduate education and interim dean of the graduate school, University of Colorado at Boulder, stated that the vast number of disciplines have no connection or access to any participating funding agency. In these cases, a PFF program would have to be university-wide or it would fail.

Wyn Jennings summarized the important issues for sustainability:

- To accommodate a portfolio of student interests and student projects
- To promote more flexibility in program design and a 10-to-15 year window for complete adoption and incorporation
- To implement formative and summative assessments of the PFF programs
- To convince universities that PFF and professional development programs are important

Further suggestions for future action:

- Purposely build in a commitment from institutions to pick up funding and accommodate the program
- Support the formation of active graduate alumni associations and a more broadly composed advisory council that would include alumni and students
- Encourage increased involvement of professional societies

continued next page

PFF Complementarity Meeting

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Opportunities for complementarity. In addition to those opportunities for complementarity already mentioned, initiative leaders and funders identified further opportunities for partnerships in their final comments. George Walker stated that PFF's focus should be not only on teaching, but on strengthening the ability of the next generation of scholars to create new knowledge and analyze existing knowledge critically. He also introduced the idea or metaphor of "silos" that exist within each organization (e.g. foundations, educational associations such as CGS, universities, national initiatives on graduate education): "Within each of our organizations there are silos that need to coordinate." Promoting a "responsible philosophical approach," teamwork, and recognition of the value of different philosophies are all important in the preparation of future faculty. Dr. Walker said he could identify two or three joint funding opportunities in areas where organizations and initiatives (including the Carnegie Initiative, which works with the disciplines, and the Woodrow Wilson National Fellowship Foundation's Responsive Ph.D., which works with the institutions) might collaborate to apply for funds: "We truly need each other. I think we'll realize it more and more as we get deeper into this."

Robert Weisbuch, president of the Woodrow Wilson National Fellowship Foundation (WWNFF), echoed Dr. Walker's interest in exploring joint funding opportunities and viewed diversity as a particularly important issue that a partnership between PFF and the WWNFF might be well situated to address.

Jody Nyquist followed up in her remarks by saying that she did not think the national initiatives have been as imaginative in forming partnerships as they might be. She mentioned the need for a confluence of roles, of influences, and of leverages, by which Re-Envisioning the Ph.D. and other initiatives might address the changing shape of the Ph.D. It is also important to open up in innovative ways the potential partnerships between business, government, and the academy.

Picking up on Dr. Walker's metaphor, Myles Boylan said that, NSF-sponsored undergraduate, graduate, and research programs are "funding silos." It is difficult to take funds and move them around in creative ways without disrupting NSF's existing strategies and policies for funding, and Dr. Boylan stated that the NSF's division of education would like to carve out a program in graduate education that would allow PFF to be funded in more dramatic and sustained ways. Once initiative directors begin to work more effectively with their colleagues in other NSF directorates, their resources will be greater.

Wyn Jennings said that PFF could be a vehicle for professional development internships. IGERT's goal is to prepare students for both academic careers and private sector careers. IGERT, he said, could fund a multidisciplinary program in which PFF is a component. He emphasized the need to think of PFF as a multidisciplinary, and not only a disciplinary, program. PFF could fit nicely within IGERT's framework in terms of personal and professional development for graduate students.

Roosevelt Johnson said that AGEP is structured differently from some of the other programs at the meeting. "Because it developed and was funded from a single institution, AGEP realized right away that it would get more bang for our buck if it had more partnering." He sees a confluence of goals, objectives, and strategies that would enable PFF to form partnerships to enhance minority participation and professional development. CGS can pull groups together and endorse change with a leverage that other associations don't have. Dr. Johnson also perceived an opportunity for joint funding, as well as an overlap in recognition and rewards.

Concluding Remarks

Debra Stewart concluded with thanks to the participants for engaging in a rigorous and rich discussion about the past, present and future of PFF. She restated the Council of Graduate School's deep commitment to the full preparation of students for the careers they follow and to building and reinforcing partnerships that will make this commitment a reality. The task of diffusing the good ideas generated at the Complementarity Meeting rests with the leaders of the PFF project at CGS. Together, partnerships must be forged and the framework set for the next generation of PFF programs to enable the participating institutions to establish forward-looking, sustainable activities for their graduate students and postdoctorates. Those institutions have the task of using the outcomes from all of the individual PFF efforts to accelerate the cultural change in graduate education that PFF exemplifies--including professional development as an integral part of graduate education. ✧

**This meeting was held at NSF on June 17, 2002, and was organized by Joyce Jentoft, Principal Investigator of the PFF3 grant.*

Federal Relations Update

continued from page 4

Projects Agency (SARPA) within the S&T Directorate, which would administer an Acceleration Fund that would support research and development of technologies relevant to homeland security. The legislation authorizes $200 million in FY 2003 for the Acceleration Fund and states "… monies may be available through grants, contracts, cooperative agreements, and other transactions…. Competitive, merit-based selection procedures shall be used for the selection of projects and participants for transactions." There is no similar provision on the House bill. Other issues that are contained in one or both of the proposals include:

- Agency responsibility for NIH bioterrorism-related research
- Creation of university-based center(s) for homeland security and eligibility requirements for universities
- Establishment of a Homeland Security Institute
- Creation of science advisory committees
- Transfer of existing programs to the new Department of Homeland Security
- Immigration regulatory issues and the reorganization/elimination of the Immigration and Naturalization Service
- Intellectual property

CGS Federal Relations is monitoring a third piece of legislation that could resurface. Sens. Phil Gramm (R-TX) and Zell Miller (D-GA) may offer their homeland security legislation, S. 2794, originally introduced in July, as a substitute to S. 2452. The Gramm-Miller substitute is the original Administration proposal for the creation of the new Department of Homeland Security. This proposal does not contain the science and technology provisions of either the current Senate bill or the House-passed legislation, H.R. 5005. As a lame-duck session of Congress grows increasingly likely amid myriad legislative delays, it seems that federal lawmakers may go home to campaign within the first two weeks of October. That opens the possibility that this Congress will not pass a Homeland Security bill because the Senate would run out of time to conference.

Appropriation Bills and the New Fiscal Year

With the expected return of congressional members to their home districts in early October, it is likely that they will do so without passing any appropriation bills. It is anticipated that a short-term spending measure, called a continuing resolution, will be passed providing a few weeks of funding to operate the government. After the election, the lame-duck Congress would come back and finish work on the appropriations bills. Some members are calling for a continuing resolution that would fund government operations until the next Congress convenes, with perhaps new parties in control of the House and Senate.

CGS Federal Relations will continue to monitor these and other important issues here in Washington. For more information, please do not hesitate to contact Lance Pressl at lpressl@cgs.nche.edu. ✧

Data Sources

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Even with this expansion of the concept of suitable Ph.D. employment, many new Ph.D.s aspire to academic positions and take postdoctoral appointments after the doctorate. While the employment situation for postdocs is slowly improving with rising salaries and improved supervision, we still lack comprehensive data on what happens to postdocs following their postdoctoral appointments. The consensus in a forum on Science's Next Wave[4] is that there are still too many new Ph.D.s taking postdocs.

The question that opened this article however, is, are we experiencing the Ph.D. shortages forecast a decade ago? The answer--with exceptions in some subfields such as bioinformatics--is of course, we are not. The forecasts may have served a very useful role, however, giving the academic sector a wake-up call that encouraged universities to prepare for the inevitable faculty retirements and increases in undergraduate enrollment. So too have new Ph.D.s responded to the new job market reality of increased opportunities for employment and looked beyond the research institution to master's-focused, baccalaureate and two-year colleges and to business, industry, non-profits, and government. ❖

Notes

[1] Two of the most notable forecasts were a) Atkinson, Richard C. Supply and Demand for Scientists and Engineers: A National Crisis in the Making, Science, Vol. 248, pp 425-432 and b) Bowen, William, and Julie Ann Sosa, Prospects for Faculty in the Arts and Sciences, Princeton University Press, 1989.

[2] American Institute of Physics, Initial Employment Report: Follow-Up of 1999 and 2000 Physics Ph.D. Recipients, www.aip.org/statistics/trends/highlite/emp00/emphigh.htm.

[3] American Mathematical Society, Notices of the AMS, August 2002, pp. 1-6, www.ams.org/notices/200207/01second-report.pdf.

[4] nextwave.sciencemag.org/cgi/content/full/2002/08/27/2

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Volume XXXV, Number 9 November 2002

Graduate Student Support: How Much Does Money Matter?

by Joan F. Lorden, CGS/NSF Dean in Residence and Associate Provost for Research and Dean of the Graduate School, University of Alabama at Birmingham, and Jennifer Slimowitz, AAAS Fellow, Division of Graduate Education, National Science Foundation

Ask a graduate dean what issues are most pressing and student support will be high on the list. In doctoral education, financial aid is a key to recruitment for the graduate program and a key to completion for the graduate student. Most often financial aid is a patchwork of fellowships, traineeships, tuition waivers, scholarships, teaching assistantships, research assistantships and loans, but 79% of doctoral students (excluding those in education) received some form of financial aid in 1999-2000.[1] The exact combination, the amount, and the duration of support depend heavily on the discipline and the resources of the institution. Since the 1950s federal agencies have also played an important role in graduate student support. While research assistantships support the vast majority of students funded by federal dollars, fellowships and traineeships are highly visible sources of graduate student aid. The impact of these stipends on other forms of support is not well understood.

At a recent gathering of the Fellowship Roundtable in Washington, DC, graduate fellowship program administrators discussed their programs and the plans for increases in stipends in federal programs. Despite the acknowledged importance of financial aid in graduate school, particularly in doctoral education, neither institutions nor funding agencies have a systematic method for setting stipend levels. A level of support that acknowledges the value of graduate education and reduces the financial sacrifice required to attend is desirable, but among the questions raised at the Fellowship Roundtable were: what is the purpose of stipend support, how much is enough, what is the impact of stipends on the attractiveness of graduate education and do federal program stipends drive other forms of graduate student support?

For graduate programs, increases in stipend levels and other benefits are driven largely by pressure to stay competitive in recruitment of top applicants.[2] The awards of the National Science Foundation Graduate Research Fellowship Program (NSF GRF) and other competitive programs are designed to bring the best and the brightest into graduate education. National programs face the challenge of providing a reasonable standard of living for recipients across a wide range of environments, including areas where the cost of living is high. These programs must increase stipends to keep pace or rely on institutions to supplement the stipends. They do so with varying degrees of effectiveness as budgetary constraints and other factors allow.

Data in Figure 1 show the change in stipend levels in constant dollars over the recent history of the NSF GRF and the National Institute of Health's Ruth Kirschstein National Research Service Awards (NRSA).[3] For the GRF, there was an overall increase of 92% between 1981 and 2001. Most of the increase occurred in the early 1980s and levels drifted down until recently. An independent study of the program concluded that the stipends awarded in 1998-99 ($15,000) were too low in comparison to other national programs and to prevailing costs for attending graduate school.[4] Significant increases have followed.

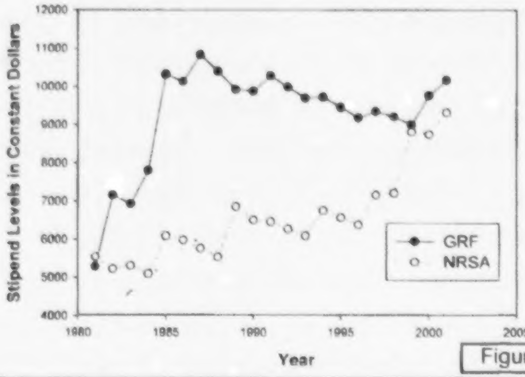

Figure 1

The NRSA stipends, although similar to the GRF in the early eighties, have historically lagged the GRF stipends. Over the same 20-year period, NRSA awards have shown an increase of 68% in constant dollars, but timing of the increase differs from the GRF. The NRSA stipends increased gradually in the early 1980s and 90s and only began to approach the GRF in the mid-1990s. Although the number of graduate students supported by the GRF and NRSA programs is relatively small (approximately 2% in the year 2000), these programs tend to be influential in determining the overall support levels of students. The stipends for the

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Graduate Student Support

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Department of Education's Program for Graduate Assistance in Areas of National Need (GAANN) are based on the GRF awards. The stipends for the NSF Integrative Graduate Education and Research Training (IGERT) program and the program for Graduate Teaching Fellows in K-12 Education (GK-12) are also set at the GRF level. In the case of the NRSA program, which like GAANN, IGERT, and GK-12 provides support primarily through institutional training grants, there is pressure in programs to support students working side by side at the same rate, regardless of the funding source. Walter Schaffer of NIH described the NRSA stipend as the "de facto wage standard in the biomedical sciences." The NIH has announced gradual increases in predoctoral stipends to $25,000 with cost of living increases thereafter to avoid the stair step effects seen in Figure 1. The NSF programs may [illegible] fellowship stipends rise to $30,000 in the next couple of years.

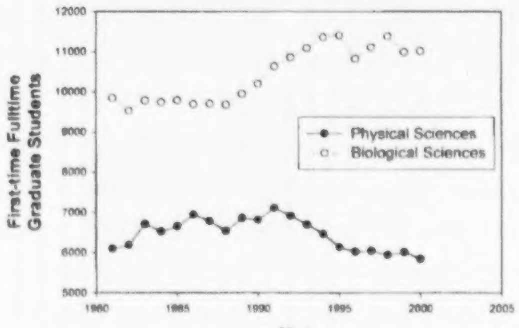

Figure 2

Given the recent increases in stipend levels and the increases that are likely to follow over the next few years, are fellowship and traineeship programs related in any substantive way to decisions of students to enter science and engineering programs? The enrollment data plotted in Figure 2 suggest they are not. Despite increases in GRF stipend value, first time, full-time graduate enrollments declined throughout the 1990s in most areas of science and engineering. Data for physical sciences are shown. Enrollment data for this period show a persistent decline in U.S. citizens' participation in graduate education in these fields with increases in 1999 and 2000 attributable to increases in students with temporary visas who comprised over 29% of the science and engineering graduate population in 2000. For the biomedical science fields typically supported by the NRSA program, however, the period of the late 1980s and early 1990s when stipends were low was a time of rapid growth with enrollment increases of about 3% per year. Declines in enrollment for this group did not begin until 1995.

If there is no clear evidence that stipend levels draw students into graduate programs, are there other consequences or concerns for graduate education in the face of changes in student support? If fellowship programs are designed to bring the best students into the field, who are those students and how are they best served? James Lightbourne of NSF asked Roundtable participants if the traditional measures of top students were still adequate. At a time when underrepresented minority graduates are sought to diversify faculty, student stipends need to be at levels that do not deter students with limited resources. Margaret Petrochenkov, representing programs like the Ford Foundation Minority Fellowship Program that target underrepresented minority students, questioned whether funding sources would be able to keep pace to maintain the number as well as the level of stipends needed to increase minority participation. As stipend levels are raised, at what point will there be an impact on the numbers of awards? The NSF GRF stipends are at an all time high, but 900 per year are awarded, down from the maximum of 1,400 once available. Kim Nickerson from the APA Minority Fellowship Program stressed the need to balance the call for raising the overall stipend levels for fellows against our need to also increase the total number of fellows supported in certain areas. For example, as a member of the National Advisory Council of the NIH National Human Genome Research Institute, he pointed to the need for more people trained in the ethical, legal, and social implications of genome science and asked whether we can meet our scientific goals without increasing the number of underrepresented minorities in this area.

What other factors increase the value of fellowships and result in better outcomes for students? The move toward provision of health care benefits by institutions is important as costs for health insurance exceed the reach of most students. This is one aspect of greater attention to the lives of the students in graduate education. Representatives of minority fellowship programs like the Ford, APA and the Southern Regional Educational Board Doctoral Scholars programs also emphasize the need for ancillary programming to provide mentoring and social support for students through graduate school and into their careers. The Ford, APA and SREB programs have regular meetings for fellowship recipients to provide networking opportunities and mentoring. The APA program sponsors students at national conventions and has launched a summer program in ethics and survival skills for the program's neuroscience students. Connecting students to alumni and developing continuing relationships with students foster success and keep retention rates high in these programs. This message may be valuable for all programs.

Commenting on the efforts of the mathematics community to encourage more U.S. students to seek graduate degrees in mathematics, Sam Rankin of the American Mathematical Society noted that the importance of the graduate enterprise is telegraphed by the dollars invested. The majority of mathematics students are supported by teaching assistantships at levels well below the GRF or NRSA awards. In recruiting students, more important than the money, is the ability to give students a sense of what they can expect from a graduate program and what their career prospects are when the degree is completed. Investing time in improving the environment in programs, providing career development opportunities for students, and offering student mentoring workshops for mathematics departments is needed as much or more as improvements in the curriculum. Rankin pointed to programs like those at the University of Nebraska that have more than 50% women enrolled and programs at the University of Arizona and Arizona State that have increased the number of Hispanic students in the pipeline as examples of programs that have figured out how to create positive environments that are attractive to underrepresented groups.

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The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and comments about the *Communicator* may be directed to the Council of Graduate Schools.

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Data Sources:

by Peter D. Syverson, Vice President for Research and Information Services

NCES Publishes Latest Data on Student Financing of Graduate Education

Developing valid and reliable information on how students finance their graduate education is one of the most challenging tasks facing the research community. Even if available, much of the information is maintained in multiple offices on campus, and critical loan and credit card debt information is known only by the graduate student. To address this difficult issue, the National Center for Education Statistics conducts the National Postsecondary Student Aid Study (NPSAS), the premier national data collection effort in the area of student support. NPSAS results are scheduled to be available for analysis as Reauthorization approaches on the calendar.

The results of the 1999-2000 NPSAS have recently been released in a report titled Student Financing of Graduate and First-Professional Education.[1] This report contains a wealth of information on the financial support of graduate students, and this year's edition contains a special section on the use of assistantships to support graduate students. With the encouragement of the higher education community, the NCES has expanded the sample of graduate students in NPSAS so that the database contains data from approximately 10,600 graduate students. This enhanced sample will allow a more detailed analysis of graduate student support than we have been able to conduct with past editions of NPSAS.

Sources of Support

NPSAS categorizes graduate student support into grants (fellowships, tuition scholarships and employer support), loans and assistantships. According to NPSAS, 60% of all graduate and first-professional students received some sort of financial aid in 1999-2000. That is noticeably higher than the 52% reported in the 1995-1996 NPSAS. As shown in Table 1, nearly three-fifths of master's students, three-quarters of doctoral students, and 85% of first-professional students received support. For full-time students, the figures are 79% for master's degree students and 88% for both doctoral and first-professional students.

While those figures indicate the general level of support, NPSAS results document that the source of support differs markedly by degree program, especially between graduate and first-professional programs. For doctoral and master's students, support is divided among the three sources, with loans being third in importance for doctoral students and second to grants for master's students. In contrast, first-professional students finance their education primarily through student loans. The 76% of first-professional students using loans is about three times the percentage of master's and doctoral students using loans to finance their graduate education. In general, graduate students were far more likely to be supported by grants and assistantships than by loans.

Percentage of graduate and first-professional students receiving aid and average amount received, by aid type and degree program, 1999-2000

	Percent receiving aid	Average amount received*
Master's	58%	$10,391
Grant**	37%	$4,950
Assistantship	16%	$7,288
Loan	27%	$12,358
Doctoral	72%	$18,466
Grant**	51%	$10,686
Assistantship	47%	$11,711
Loan	22%	$13,175
First-Professional	85%	$21,505
Grant**	44%	$6,507
Assistantship	11%	$4,799
Loan	76%	$19,559

*Average amount received by those receiving aid.

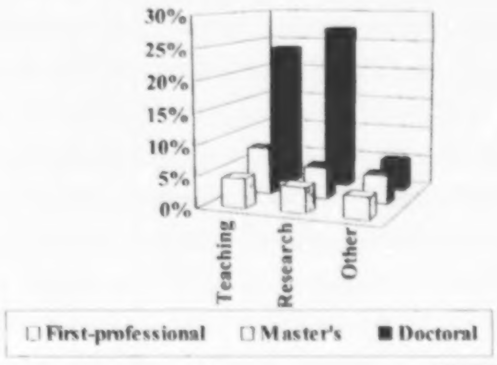
**Grants include support from fellowships, tuition remission, and employers.

Source: NCES, Student Financing of Graduate and First-Professional Education, 1999-2000, NCES 2002-166

Table 1

Although the fraction of graduate students taking out loans seems low, the dollar amount of these loans is not. For both master's and doctoral students, loan amounts are higher than either grants or assistantships, averaging over $12,000 in 1999-2000. These loan amounts raise the issue of graduate student debt, which will be addressed later in this article.

Graduate students with assistantships, 1999-2000



Source: NCES, NPSAS 2000

Figure 1

Of course, the use of loans by first-professional students outstrips that of graduate students. In 1999-2000, first-professional students received an average of $19,559 in loans, considerably higher than the amounts for graduate students. Moreover, these loan amounts are growing rapidly, rising more than 20% from the levels reported in 1995-1996.

Graduate Assistantships

The NPSAS report contains a special analysis section on graduate assistantships, based on a series of questions asked during the telephone interview phase of the project. According to student responses, approximately 20% of all graduate and first-professional students received an assistantship, with nearly even percentages receiving TAs and RAs. Nearly one-half of doctoral students received an assistantship, compared to 16% of master's students and 11% of first-professional students (see Figure 1).

Along with type of degree, graduate assistantship support varied by field of study (see Table 2). As expected, more students in science and engineering fields were supported by RAs and TAs, with the life sciences leading in the support of master's students and engineering, math, and computer science leading in the fraction of doctoral students supported on assistantships. Stipend levels varied widely as well, with stipends highest in the life sciences and humanities. On average, RA stipends were higher than TA stipends.

Graduate Student Debt

Arguably, the most serious issue facing students is the amount of education-related debt accumulated

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Federal Relations Update

by Lance Pressl, Vice President for Federal Relations and Public Affairs

In the weeks leading up to the November 5th, election, there will be a great deal of speculation about how voters will act on election day and which party will have the majority in both houses of Congress. History suggests that the party in control of the White House during midterm elections typically loses seats in both the U.S. House and Senate. According to noted Washington observer Charlie Cook, since the Civil War, the party holding the White House has lost seats in the House 32 of 34 midterm elections and has lost 75% of the races in the Senate since the direct election of senators began. Given these historical trends, most observers have concluded that Democrats would strengthen their slim hold of their leadership position in the U.S. Senate and make strong inroads--if not taking the majority--in the House of Representatives. In fact with a sluggish economy where we have seen a 30% decline in the value the Standard & Poors 500-stock index, the Dow Jones hitting the lowest level in nearly five years, and a return to the unemployment rates of the 1990s, one could imagine that the Democrats are positioned well to win it all on November 5.

Despite the history of midterm election results and the poor economy, the word on the Hill is that the 2002 midterm election may buck the trends of history and that the Democrats will not succeed in strengthening their position in the U.S. Congress. According to a Washington Post-ABC News poll, President Bush's approval rating continues to be strong, hovering just under 70%, and the approval rating for the U.S. Congress is up six percentage points from a year ago, to 51%. Bolstered by these strong approval ratings and the growing support for President Bush's successful handling of the Congressional resolution granting the President the authority to use unilateral military action against Saddam Hussein, Republicans across the country are feeling extremely optimistic about this midterm election. However, in a recent edition of *Roll Call*, political commentator Stuart Rothenberg acknowledged that voter attention has been focused largely on issues of war and peace and national security issues, which favor the Republicans, but he argued that there is still time for the Democrats to shift the public's attention to the economy and make the midterm election a referendum on the White House's handling of the stock market and the economy. Rothenberg observed, "[T]hree weeks of bad news on Wall Street-and possibly the 'capitulation' (in the form of a big sell-off of more than 500 points on the Dow) that some market strategists say could be forthcoming could have a huge impact on voter psychology, elevating the importance of economic themes."

What happens before November 5th will obviously have a significant impact on voter turnout--traditionally low in non-presidential elections--and voter behavior. For political junkies, last-minute prognostications and political maneuvering are a marvel to watch. Will the Democrats succeed in turning the debate to the economy and in the last days before the election tie the economic downturn to the Republicans? Or will the Republicans be successful in keeping the debate focused on national security and war preparation? We will soon know the answers to these questions.

What is the significance of all of this debate and crystal-balling for the graduate education community? The important fact is that neither side of the aisle is predicting an electoral landslide and mandate. Majorities will likely be slim in both houses of Congress. In fact, under one popular scenario, pundits have suggested that the Senate will be split, 50-50, with Vice President Cheney breaking the tie. Given that neither party is likely to dominate either house, there is an urgent need to redouble our efforts to develop a bipartisan network of support for graduate education. Work is already underway in Washington to strengthen CGS ties with key members and staff of the Republican and Democratic parties, as well as the Administration. This effort is ongoing and it will continue to be a major component of the CGS federal relations strategy. It is critical that graduate education have a strong "Hill voice"--a voice that communicates the CGS legislative agenda consistently and concisely.

According to the literature on legislative decision-making, there is another critical element in the equation. While members of Congress receive important information and voting cues from a variety of sources in Washington, DC, the literature demonstrates that information received at home in legislative districts is equally--and in many instances more--important than information received on Capitol Hill.

At the CGS Summer Workshop in Portland this past summer it was noted that CGS member institutions are located in more than 75% of the congressional districts, and all members of the U.S. Senate have a CGS member institution in their states. Simply stated, these are impressive numbers. The potential reach of CGS is tremendous and the possibilities for graduate education are endless. Given the likely makeup of both houses of Congress and the slim majorities, it will be increasingly important for all Congressional members within CGS' reach to hear the voice of graduate education at home and on the Hill.

Many CGS deans have established relationships with their members of Congress. This is an important first step, but in order to be successful in advancing the graduate education legislative agenda for the long term, we need to broaden our network and reach out to many more members. In doing so, however, it is absolutely critical that the university federal/government relations officer participate in the process. University federal relations officers are important partners and invaluable resources. CGS recognizes the role that university federal relations officers play and understands that working as a team is paramount to achieving our legislative goals.

After the excitement of November 5th dies down and the leadership in the U.S. Congress is established, CGS will be readying itself to advance the graduate education agenda in the 108th Congress. This new Congress will have no shortage of important legislative issues. Homeland security and national defense will continue to dominate the issue agenda, as will the economy and the budget. Higher education reauthorization will also be a hotly debated topic. In the end, our ability to help formulate and shape the policies affecting graduate education will depend on the relationships we cultivate and our ability to partner with key allies. CGS looks forward to the challenges of the new Congress and working with the CGS community to ensure that the graduate education voice is heard loudly and clearly. ❖

Data Sources

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through undergraduate and graduate study. As the costs of higher education rise and federal loan regulations are liberalized, students are increasingly using loans to finance their undergraduate and graduate education. The NPSAS results indicate that loan-taking behavior varies widely by factors such as type of institution, field of study, and type of degree. Displayed in Table 3 is summary information on the percentage of 1999-2000 degree recipients who had taken out loans to finance their education and the average amount of those loans.[2] What is unique about these data is that through NPSAS, we are able to separate undergraduate from graduate debt, allowing us to better understand the contribution of each level of education to the total debt burden of students. Again, it is important to note that the average amount of debt is computed for those with debt, not for the full population of degree recipients.

According to Table 3, more than two-thirds of graduate and first professional degree recipients in 1999-2000 had borrowed to finance their education. This loan debt could have come from either undergraduate or graduate borrowing, or some combination of the two. For all three levels of graduates, undergraduate borrowing was less than the average debt accumulated during graduate study.

RA and TA stipend averages by field of study, 1999-2000

Field and degree level	Percent with RA	Average RA stipend	Percent with TA	Average TA stipend
Total				
Master's	5.2%	$6,938	7.5%	$6,022
Doctorate	27.1%	$10,736	23.6%	$8,543
Life and physical sciences				
Master's	24.6%	$8,137	29.6%	$6,240
Doctorate	54.8%	$12,995	33.5%	$10,375
Health sciences				
Master's	2.9%	—*	3.2%	—*
Doctorate	21.4%	$10,446	14.4%	—*
Engineering, comp sci, and math				
Master's	15.0%	$7,566	10.4%	$8,352
Doctorate	49.9%	$10,365	69.5%	$8,200
Social and behavioral sciences				
Master's	7.3%	$7,380	9.9%	$5,178
Doctorate	16.8%	$6,351	26.4%	$7,800
Humanities				
Master's	3.4%	—*	19.0%	$6,975
Doctorate	7.4%	$12,075	30.4%	$9,382
Education				
Master's	0.7%	—*	2.8%	$3,306
Doctorate	7.7%	$6,282	6.8%	$4,830
Business				
Master's	3.0%	$7,002	3.8%	$4,745
Doctorate	19.2%	—*	24.2%	—*

*Too few cases to compute an average stipend.

Source: NCES, NPSAS:2000 Data Analysis System

Table 2

As with the percentage of students reporting loans, the average total loan amount varied widely by degree type. Master's students graduated with the least debt, averaging $29,319 for the 65% with debt. Doctorate recipients borrowed an average of $34,659 and the 90% of first-professional graduates had accumulated an average of $80,854. The loan totals of first-professional students were more than twice that of master's and doctorate recipients.

These loan figures are considerably higher than those found in the 1995-1996 NPSAS. For example, in the earlier study, 35% of doctoral students had taken out loans in graduate school averaging $21,729. The comparable figures for 1999-2000 are 47% and $33,684. The largest loan increase was for students in first-professional programs, where graduate loan levels increased from $51,648 to $72,297.

Discussion

NPSAS 1999-2000 represents an important source of data on the financial support of students engaged in U.S. higher education. In addition, the National Center for Education Statistics has made the database freely available to researchers through their Data Analysis System accessible via the Internet at www.nces.ed.gov/das/.

The good news in this NPSAS is that both the percent of graduate students receiving grants and assistantships and the dollar amount of that support has grown since 1996. The recent increases in stipend levels from NSF and NIH serve as strong signals to institutions that stipends need to be raised for their admission offers to remain competitive. NPSAS provides evidence of the extensive support available for master's and doctoral students. More than three-quarters of full-time graduate students receive some level of support for their graduate study, and more than two-fifths of all master's and doctorate students graduate with no education-related debt.

Of course, the flip side of grants and fellowships is loans, and it is here where we see a disturbing trend. Since 1996, both the percentage of students borrowing and the amounts of money borrowed to finance graduate education have risen. NPSAS findings of greater borrowing on the part of both undergraduate, graduate and first-professional students reflect the new reality of federal loan programs and costs of education. In the reauthorization of the Higher Education Amendments in 1992, Congress broadened eligibility for subsidized federal student loans, raised loan limits, and created an unsubsidized loan program open to all students regardless of income. As a result of these changes, and of higher costs of education, more students are borrowing, and borrowing greater amounts.

Percentage of graduate and first-professional degree-recipients who borrowed and average cumulative amounts borrowed, by degree program, 1999-2000

	Undergraduate		Graduate/First Professional		Graduate/First Professional and/or Undergraduate	
Total	54%	$14,769	51%	$36,976	68%	$39,189
Master's	53%	$14,645	45%	$25,204	65%	$29,319
Doctoral	48%	$12,848	47%	$33,684	64%	$34,659
First-Professional	66%	$16,261	86%	$72,297	90%	$80,854

Note: The first two columns indicate the cumulative education-related borrowing for the undergraduate and graduate levels of study. Because a student may have taken out loans during undergraduate study and not during graduate, these columns are not additive. The third column presents data on total cumulative borrowing for education, whether the loans were taken out at the undergraduate or graduate level or both.

Source: NCES, Student Financing of Graduate and First-Professional Education, 1999-2000, NCES 2002-166.

Table 3

Clearly, we are witnessing an important change in the way that students are paying for graduate education. Borrowing for graduate education is not altogether a bad thing, because students are investing in their own human capital. If the earning of a graduate degree results in greater earnings and career satisfaction, then the payoff from the loans can be seen as positive. Nevertheless, this increase in student debt warrants our attention as graduate schools tackle the difficult issue of graduate student support. ◆

Notes

[1] Copies of the National Center for Education Statistics report, Student Financing of Graduate and First-Professional Education, number NCES 2002-166, are available in print at 877-4ED-Pubs or on the NCES website at www.nces.gov/pubsearch/pubsinfo.asp?pubid=2002166.

[2] Note that this discussion refers to loans and not debt. It is possible for graduate students to have already paid off some of their undergraduate loans before entering graduate school. Thus, total accumulated loans may be greater than total debt.

Graduate Student Support

continued from page 2

The good news for students is that institutions and agencies are increasingly attentive to their needs, particularly during the lengthening predoctoral period. What is the best way to provide for our future leadership given a finite budget? A few institutions have started to support their students in all areas fully, but are putting limits on student admissions. Whether this approach will be broadly adopted is unknown. As stipends rise, student numbers may be limited by the availability of grant funds to support research assistants or by agencies deliberately constraining stipend numbers to better support fellows and trainees. There is concern throughout the graduate community that commitments to diversify the student population be maintained if the numbers constrict.

Although there are many questions that can be raised about the potential impact of increases in stipend levels, the incremental changes made to a baseline established in the distant past are being revisited. Establishing a new base for student support that takes into account the real needs of current students and developing programs that consider the full context in which students are trained and the outcome of that training will benefit students and strengthen the enterprise of graduate education. ✣

Notes

[1] Choy, S. P. & Geis, S. Student Financing of Graduate and First-Professional Education, 1999-2000: Profiles of Students in Selected Degree Programs and Their Use of Assistantships. NCES 2002166, July 2002.

[2] Smallwood, S., Stipends Are Key in Competition to Land Top Graduate Students. The Chronicle of Higher Education, September 28, 2001, Section: The Faculty, Page: A24.

[3] The authors thank Joan Burrelli of NSF for her help in the preparation of the data.

[4] Goldsmith, S.S., Presley, J.B., & Cooley, E.A. National Science Foundation Graduate Research Fellowship Program, Final Evaluation Report. NSF 02-080, September 2002.

Items of Interest

Peterson's, part of The Thomson Corporation, recently announced the formation of an educational partnership with **The American Indian Graduate Center** (AIGC) to enhance the promotion and realization of higher education enrollments for American Indian students. This partnership is aimed to enhance graduate and professional school opportunities for American Indian student and to increase the promotion and realization of higher education enrollment for American Indian students. Additional information about the partnership is available by visiting www.aigc.com. AIGC, located in Albuquerque, New Mexico, was founded in 1969 to help open the doors to graduate education for American Indian and Alaskan Native college graduates.

SRI International has recently released a report on the **"Outcome Assessment of the U.S. Fulbright Scholar Program"** study. The study found that the program has had a "powerful impact on scholars, their families and colleagues at home and abroad." Copies of the report are available at www.sri.com/policy/csted/reports.

Applications for the 2003-2004 competition for the **National Science Foundation (NSF) Graduate Research Fellowship Program** are available. These are three-year graduate fellowships in science, mathematics and engineering. The application deadline is November 7, 2002. For materials and information visit www.orau.org/nsf/nsffel.htm.

The Woodrow Wilson National Fellowship Foundation announces the **Newcombe Fellowship**, an award for full-time dissertation writing for Ph.D. or Th.D. candidates enrolled in doctoral programs in the humanities and social sciences. Application deadline is December 2, 2002. For more information email charlotte@woodrow.org.

The Commission on Professionals in Science and Technology (CPST) recently released a compendium of education employment and demographic data entitled, "**Professional Women and Minorities.**" The publication indicates that "women continue to gain in science and engineering fields, but minorities show limited progress." For more information visit www.cpst.org.

M.G. Publishing is offering to the public a revised edition of the **Canadian Subsidy Directory**, a guide containing more than 2,800 direct and indirect financial subsidies, grants, and loans offered by government departments and agencies, foundations, associations, and organizations. The Directory is available for $49.95 through Canadian Business Resource Center: 250-381-4822, 8 a.m.-4 p.m. Pacific Time, and Fureteur Bookstore: 450-465-5597; fax 450-465-8144 (credit card orders only).

The University of Washington website on **Re-envisioning the Ph.D.** (www.grad.Washington.edu/envision/news/current_news.html) features a the newly released study by Choy and Geis (2002) Student Financing of Graduate and First-Professional Education. The report uses data from the 1999-2000 National Postsecondary Student Aid Study (NPSAS, 2000), to profile students in various degree programs and examine how they paid for their education, with particular attention to their use of teaching and research assistantships.

McNair Memo

The 2002-2003 McNair Scholars Directory, with the names of McNair Scholars from around the country who expect to begin graduate study during the 2003-2004 academic year, is now available. Graduate schools are encouraged to aggressively recruit these highly talented McNair Scholars and provide them with application fee waivers and other financial incentives.

A copy of the Directory is also available for downloading at the CGS web page www.cgsnet.org and at the National TRIO Clearinghouse web page www.trioprograms.org/clearinghouse.

The Ronald E. McNair Post-Baccalaureate Achievement program encourages low-income students and minority undergraduates to consider careers in college teaching as well as prepare for doctoral study. Students who participate in this program are provided with research opportunities and faculty mentors. The project is sponsored by the Council of Graduate Schools/Council for Opportunity in Education Joint McNair Committee.

New Deans and Titles

Jan Allen is Associate Dean of The Graduate School at Northwestern University. She replaces Jed Marsh.

Janis Andersen is Interim Graduate Dean at San Diego State University. James W. Cobble retired on August 30, 2002. Dr. Andersen was formerly the Associate Vice President and Associate Dean.

Teresita E. Aguilar is Dean of Graduate Studies, University of New Mexico. She replaces Ken Frandsen.

Carol Beere is Associate Provost for Outreach and Dean of Graduate Studies at Northern Kentucky University.

Paul Carvey is Acting Dean, The Graduate College, at Rush University. The former dean was John E. Trufant.

Jolie Cizewski is Vice Dean at Rutgers University, replacing Ziva Galili.

Amy Eldridge is Chief Administrative Officer at the Institute for Clinical Social Work. She replaces Thomas K. Kenemore.

Evelyn S. Erenrich is Assistant Dean of Recruitment and Retention at University of Medicine and Dentistry of New Jersey-Graduate School of Biomedical Sciences-Piscataway Campus.

Kurt F. Geisinger is Vice President, Academic Affairs, at the University of Saint Thomas.

T. Daniel Griffiths is Acting Vice Provost for Research and Dean of the Graduate School at Northern Illinois University. The former dean, Jerrold H. Zar, has retired.

Dianne D. Horgan is Associate Dean, Graduate College at the University of Arizona.

Aquiles Iglesias is Acting Dean, Graduate School at Temple University. She replaces Sheryl Ruzek, who had been acting dean.

Wilmer Johnson is Vice President for Academic Affairs at the University of the District of Columbia. Rachel Petty is the former vice president.

O. Ray Kling, Dean of the Graduate College at the University of Oklahoma Health Sciences Center in Oklahoma City, will step down as Dean and Vice Provost effective January 1, 2003. He will return to a faculty position in the College of Public Health, with administrative responsibilities as Associate Dean for Academic Affairs.

Godfrey Mungal is Associate Dean of Graduate Policy at Stanford University. George Dekker, the former dean, has returned to teaching.

Gordhan Patel, former Graduate Dean at the University of Georgia, has been promoted to Vice President of Research and Associate Provost.

Patrick Pellicane is Interim Dean of the Graduate School at Colorado State University. James L. Fry is the former dean.

Margrit von Braun is Associate Dean of the College of Graduate Studies at the University of Idaho. She replaces Roger P. Wallins.

Karen Weddle-West is Interim Assistant Vice Provost for Graduate Studies at the University of Memphis. The former dean is Dianne D. Horgan (see her entry above).

Frederick H. Wezeman is Associate Dean of the Graduate School at Loyola University of Chicago. He replaces Andrew Chludzinski.

The Graduate School Funding Handbook

Book Review by Teresa Delcorso, Director of the Center for Humanities and Social Science Research, and Harvey Waterman, Associate Dean for Academic Affairs, Graduate School-New Brunswick of Rutgers, The State University of New Jersey

Old-timers (including one of us) will remember with pleasure having had April Hamel as a colleague in the graduate deanery. Her book, The Graduate School Funding Handbook, with Mary Morris Heiberger and Julia Miller Vick (University of Pennsylvania Press, 2002), is now in a second edition and should be on the shelf of anyone in a graduate dean's office who advises doctoral students. It is probably the best short introduction to applying for funding, both for entering and first-year students and for those seeking external support for dissertation research. Drawing on her experiences at Washington University, where competing for federal fellowship dollars was practically a science, Hamel effectively and concisely lays out the do's and don'ts of applying for funding and then gives detailed information about a number of the major competitions.

There are a lot of books, manuals and websites that graduate students may use to help them apply for funding, including massive tomes from Peterson's, Princeton Review, the Foundation Center and the U.S. government, as well as government, university and other databases, some of them free, some not. But the slim 147-page volume under review packs the most useful advice on how to apply, why to apply and where to apply. Beyond practical advice on applications, the book contains valuable career guidance that will help students professionalize as they make their several ways through doctoral education. (The book speaks to master's students as well, especially at the beginning, but the bulk of it will be of interest only to doctoral students.)

After an initial chapter on applying to graduate school and on institutional funding, the remainder of the book is about getting external funding in the form of fellowships, research grants and, in a last chapter, postdoctoral fellowships. The book's value lies in two areas: the very good general advice it gives to those applying and the detailed descriptions it gives of the major competitions. It explains why seeking external funding is important, even if institutional funding is available, the importance of paying close attention to the goals and instructions of the funding body, the necessity of working closely with an adviser or a research mentor or both, the value of starting early and meeting deadlines, and other useful pointers, all expressed clearly, succinctly and even elegantly. There is a thorough discussion of how to identify relevant funding sources and a useful description of the general kinds of funding for which students might anticipate competing. These are categorized as Individual Training Fellowships (e.g., NSF Graduate Research Fellowships), Study and Research Abroad (e.g., Fulbright IIE awards), Research Grants (e.g., Sigma Xi) and Dissertation Fellowships and Grants (e.g., NSF Dissertation Improvement Grants, although the social sciences grants are omitted).

Each chapter begins with an overview, is followed by general application advice, and concludes with information on several specific competitions. The competition descriptions go beyond basic information to discuss such things as what the funder is looking for, how competitive the race will be and other idiosyncrasies of the process. For example, the student is advised that in order to get past the first round in the Charlotte Newcomb Fellowship competition, she needs to impress the reviewer with her abstract, or the reviewer won't read any further. In a similar vein, the author gives advice about applying to the Explorers' Club, "The Club tends toward disorganization so persistence is important." You won't find

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Book Review

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this sort of thing in the typical guide or website.

Reviewers are entitled to some quibbles. Hamel recommends, among others, the Foundation Center materials, but in our experience these are not particularly helpful to graduate students. She mentions the U.S. News and Gourman Reports to students choosing schools, but we would recommend the advice of students' own faculty as more valuable. In any case, we would not include the Gourman Report, which is notoriously unreliable. She tells students that they may have a "home court advantage" in applying to their undergraduate school for graduate study, but for many fields, especially the arts and sciences, most faculty members will advise students that they are better off going elsewhere to get a more varied exposure to their fields. Her use of the Princeton Review as a source of information about the application process strikes us as more of an endorsement than we are comfortable with. While the selection of funding opportunities given particular attention is not a bad one, it is necessarily limited and a list of other important awards at the end would have been helpful. Finally, the book concludes with a nice chapter on postdoctoral fellowships (both national competitions and those supported by individual grants), but then just stops. The lack of a final wave may not detract from the book's practical value, but it leaves a tiny esthetic yearning for closure. Perhaps in the next edition the book can have a final page that says, "Go For It."

In sum, this is a book that can be recommended to prospective and current doctoral students with confidence and that can be used to a lesser degree by applicants to master's programs as well. The authors have succeeded in presenting the products of years of experience in a concise and persuasive volume that will help students navigate the funding maze. ◆

University of Wisconsin Oshkosh
ASSISTANT VICE CHANCELLOR
Graduate Studies and Continuous Learning

The University of Wisconsin Oshkosh invites nominations and applications for the position of Assistant Vice Chancellor for Graduate Studies and Continuous Learning. This position reports directly to the Provost and Vice Chancellor and is primarily responsible for providing leadership for graduate education, service to nontraditional and diverse students, external partnerships and collaboration, and education outreach efforts. Units reporting to the Assistant Vice Chancellor include the Graduate School, the Center for New Learning, Continuing Education and Extension, and Testing Services. Other duties will include university-wide coordination of educational outreach efforts, the promotion of academic scholarship events, and other activities to benefit the university and the community.

Required Qualifications:
Qualifications required for the position include a doctorate or an appropriate terminal degree, an outstanding record in and commitment to teaching, scholarly activity, and service. Experience in, and appreciation of the value of graduate education, and service to non-traditional and diverse students are required. Additional requirements are experience in creating partnerships and collaborating with external constituencies; administrative experience in higher education; open and collegial administrative style; a willingness and capacity to work collaboratively with diverse constituencies; and commitment to the ideals of a shared governance environment.

Preferred Qualifications: Experience in organizing and developing outreach programs and non-credit education.

Starting Date: July 1, 2003. Salary is competitive and commensurate with qualifications and experience.

Application Deadline: Review of candidate applications will begin on December 2, 2002, and continue until January 3, 2003. Qualified candidates should send a letter of application, resume, and three current letters of recommendations with contact information to:

Search and Screen Committee for Assistant Vice Chancellor for Graduate Studies and Continuous Learning, Provost and Vice Chancellor's Office, University of Wisconsin Oshkosh, 800 Algoma Blvd, Oshkosh, WI 54901.

Questions concerning the position or application process should be directed to E. Alan Hartman, Chair, Search and Screen Committee at 920-424-1424 (email: hartman@uwosh.edu).

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Volume XXXV, Number 10 December 2002

A Practical Approach to Achieving an Inclusive Graduate Community

by Debra W. Stewart, President, Council of Graduate Schools

Debra Stewart

"The Council of Graduate Schools is deeply committed to the belief that inclusiveness serves the best interests of higher education and the nation at large. An inclusive graduate community is one that seeks talented students from groups historically underrepresented in graduate education, encourages them to pursue advanced degrees, and provides them an enriched graduate experience that fosters success." With these words, we open our new series of booklets on inclusiveness. This project grew out of the efforts of the Advisory Committee on Minorities in Graduate Education, formerly chaired by Cristina González and now chaired by Claudia Mitchell-Kernan, with extensive input from winners of the CGS/Peterson's Award for Inclusiveness in Graduate Education.

Increasingly, graduate deans are searching for ways to attract and retain underrepresented students. While they have the desire to open up their programs to more diversity, some lack the practical tools to accomplish their goals. With substantial support from Peterson's, and terrific volunteer commitment from our deans, CGS has produced three new booklets to convey useful advice to the graduate community at large. The three volumes rely heavily on the successful experiences of the CGS/Peterson's Award-winning institutions.

Volume 1, *Achieving an Inclusive Graduate Community*, explores the reasons that inclusiveness makes sense in graduate education. Representatives from the award-winning institutions all report similar experiences when they moved to a more inclusive environment. Among the benefits of inclusiveness reported are the stimulating academic environment; the ability to prepare students for globalization; positive effects on curriculum and research; agenda-setting for the future, including preparing future faculty of color; and the sense of "democracy in action" when a state of inclusiveness is achieved on campus. Volume 2, *Recruiting for Success*, covers recruiting dos and don'ts. Success factors include early and frequent outreach to underrepresented students, active pursuit of prospective scholars through well-maintained networks (both academic and community), adequate funding, research opportunities for rising undergraduates and ways to provide a graduate experience that is both academically attractive and socially appealing.

The final volume, *Ensuring Success*, addresses both retention techniques and ways to make sure students progress through graduate programs successfully. Sections on mentoring, and sensitivity to students' cultural, social and financial needs are also included. Because these booklets are written from the point of view of individuals who have been successful with inclusiveness efforts, the tone is practical, useful, and often uses real life experiences with faculty or students to illustrate significant points. We attempted to capture the "voice" of success, and I believe we have succeeded.

Much of the material in these booklets will be helpful to anyone who wants to recruit and retain talented students--of all types. But the focus is particularly on how to find and cultivate relationships with underrepresented minority students and offer them the opportunities inherent in graduate education. All of those committed to this project have seen such tremendous benefits for both majority and minority students, as well as administration and faculty, that they would never turn back. They bring passion, insight and real-world experience to this endeavor--and we're sure that in reading these booklets you too will be struck with intensity of their commitment.

We know that many institutions beyond the CGS/Peterson's Award-winners successfully recruit and retain underrepresented minority graduate students. We would like to continue the dialogue on this subject, and perhaps add to these booklets in the future. As always, I am interested in your comments on this project and contributions to its future success. ✧

Note

Thanks to Mary Triesbach for help in the preparation of this article.

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Federal Relations Update

by Lance Pressl, Vice President for Federal Relations and Public Affairs

The results of the November 5th United States midterm election will surely make the history books. The party controlling the White House in midterm elections traditionally loses seats. Not so this year. The Republican Party gained seats in extremely competitive House races and increased its majority to 21 seats, up from the 13-seat majority held before the election. The Republicans had such a strong showing this election that only four House Republican incumbents running for reelection lost to their Democratic challengers. Democrats were also unable to capitalize on newly created districts, losing three of the four incumbent-versus-incumbent races created by redistricting. On the Senate side, the one vote majority held by Democrats was more than reversed. Senate Republicans now hold a four vote majority.

Leading up to the election, there was considerable discussion about the Democrats' ability to shift voter attention away from national security issues, which traditionally favor Republicans, to pressing domestic economic issues including, deflated stock prices, increased unemployment, corporate corruption, and an economy still lagging behind expectations. Clearly, the Democrats were unable to turn the tide. Much of the credit for the Republican Party's success has been attributed to President Bush, who aggressively campaigned for Republican House and Senate candidates. In one Senate race, the Republican candidate's polling numbers jumped from a six to eight point disadvantage to an even split after a first visit by President Bush and later jumped to a three to five point advantage after a second presidential visit just days before the election. The Republican challenger won.

In the days before the election, pollsters were seeing important signs that Republicans were gaining the edge. According to the Gallup News Service, the number of Americans identifying themselves as Republicans increased five points from 44% to 49% just before the election. On the Democratic side, the percentage of Americans identifying themselves as Democratic fell from 47% to 40% in the days before November 5th. The trend favoring the Republican Party has continued after the election. In Gallup's first post-election poll, conducted November 8 through 10, fewer than half, about 48%, of those surveyed view Democrats favorably or believe that Democratic leaders in the House and Senate are moving the country in the right direction. Fewer than one-third of Americans believe the Democratic Party has a clear plan for solving the country's problems, while 50% of Americans believe that the Republican leadership is prepared to deal with the country's problems. When

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The *Communicator* is published 10 times a year and is distributed by the Council of Graduate Schools as a regular member service. Subscriptions for nonmembers are available for $30 per year.

The *Communicator* encourages and welcomes members to submit articles of interest for inclusion in the newsletter. Current research, hot topics in graduate education, new legislation, and other pertinent information are desired. All manuscripts will be reviewed by a small group of graduate deans and scheduled for publication at the editor's discretion. Articles will be edited to conform to style. Inquiries about proper formatting for submissions and comments about the *Communicator* may be directed to the Council of Graduate Schools.

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Editor: Marta Perez Drake, Director of Policy, Programs and Communication
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Advisory Committee on Minorities in Graduate Education

The CGS Advisory Committee on Minorities in Graduate Education serves as a forum where strategies to enhance diversity, opportunity and inclusiveness are discussed. This year, the Committee took on the inclusiveness project and expanded participants to include members from the CGS/Peterson's Award-winning institutions. The committee will continue its work and invites CGS member input on approaches to enhance inclusiveness in the graduate community. The current members are:

Claudia Mitchell-Kernan, Chair
Vice Chancellor, Graduate Studies
Dean, Graduate Division
University of California, Los Angeles

Kweku K. Bentil
Dean, School of Graduate Studies
Indiana State University

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Dean, School of Graduate Studies
Florida A&M University

Data Sources:

Graduate Enrollment Rises for Second Year, According to Early Returns from the CGS/GRE Survey of Graduate Enrollment

by Peter D. Syverson, Vice President for Research and Information Services

Analysis of preliminary results from the fall 2001 CGS/GRE Survey of Graduate Enrollment reveals that total graduate enrollment rose by 3% from 2000 to 2001, extending the turnaround in graduate enrollment that began in 2000. The softening economy and substantial growth in international student enrollment have combined to produce the second year of increases since the nearly level enrollments of the late 1990s.

Data from fall 2000 described in this article are based upon responses from 624 or 85% of the institutions in the survey sample of 730. The CGS/GRE Survey of Graduate Enrollment is a joint project of the Council of Graduate Schools and the Graduate Record Examinations Board. Questionnaires are distributed each fall to institutions that are members of CGS or one of the four regional graduate school associations. As the quality-control procedures for the 2001 survey are still underway, the data presented here should be considered preliminary. These general findings, however, are not expected to change dramatically between this release and publication of the formal report of the survey results.

Trends in graduate enrollment, 1986 to 2001

	2000	Average Annual % Change 1986 to 2000	% Change 1999-2000	% Change 2000-2001 (Preliminary)
Total Enrollment	**1,264,692**	**1%**	**2%**	**3%**
Men	550,613	0%	1%	3%
Women	708,686	2%	3%	2%
Public Institutions	860,702	1%	2%	3%
Private Institutions	403,990	1%	2%	1%
Citizenship				
U.S. Citizens and Permanent Residents	967,199	1%	0%	1%
Non-U.S. Citizen Temporary Residents	180,620	3%	9%	9%
Applications	**1,062,972**	**3%**	**3%**	**5%**

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

Source: CGS/GRE Survey of Graduate Enrollment

Table 1

According to the data displayed in Table 1 and Figure 1, total graduate enrollment increased by 3% from 2000 to 2001, a marked change from the 1996-1999 period of level enrollment totals. Even with this overall increase, many institutions reported enrollment decreases in the last year. From 2000 to 2001, enrollment increased at 62% of responding institutions, decreased at 37%, and was constant at 1% of responding institutions.

In contrast to earlier decreases, the number of men enrolled in graduate programs increased by 3% from 2000 to 2001. At the same time, the enrollment of women grew by 2%. This growth in the number of men is especially notable because their numbers

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Data Sources

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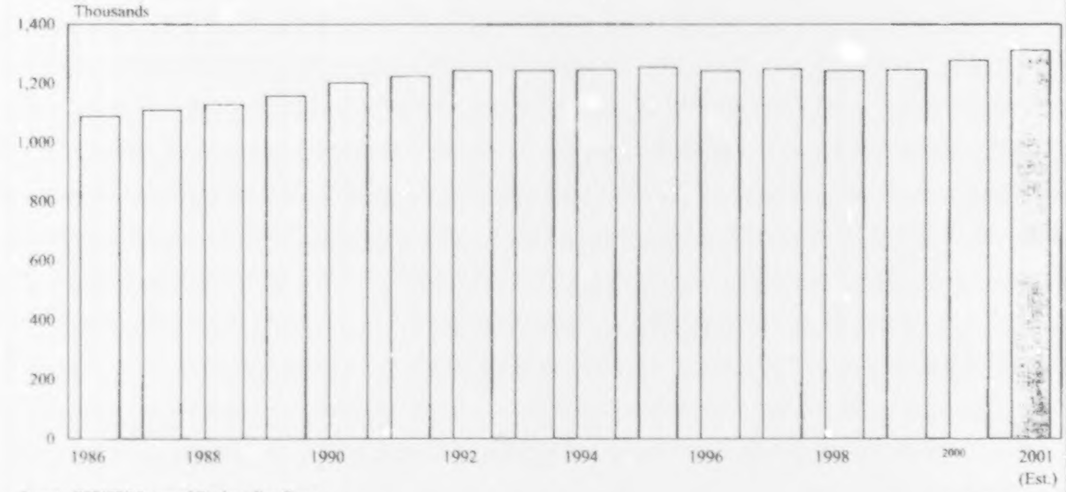
had declined for six years in a row beginning in 1993. Following two years of virtually level total enrollment, the enrollment of women has returned to the strong growth pattern that we had seen in the 1980s and early 1990s.

As in 1999 and 2000, the largest change in enrollment over the past year was the upsurge in the number of international students participating in U. S. graduate education. The number of students on temporary visas jumped by 9% from 2000 to 2001, continuing the growth spurt in international student enrollment that began in 1997. This 9% increase in both 2000 and 2001 represents the largest two-year increase in international student enrollment in the last 10 years. Moreover, since the number of U. S. men enrolled in graduate school was static from 2000 to 2001, the 9% jump in international enrollment was responsible for the increase in men enrolled in graduate school. Taken together, these increases indicate that we are in a period of intense demand from international students.

Graduate enrollment, 1986 to 2001



Source: CGS/GRE Survey of Graduate Enrollment

Figure 1

Even with these large increases, international students constitute just under 16% of overall graduate student enrollment. However, the percentage of international students varies widely by field, with science and engineering fields enrolling the highest percentage of visa students.

Following a 3% increase from 1999 to 2000, applications for graduate study rose by 5% in the last year. This is a considerable contrast to the annual 2% decreases that had been the norm from 1994 to 1997. During the high-growth period of the late 1980s and early 1990s, applications rose by 7% a year.

The enrollment of U. S. citizens and permanent residents increased by 1% from 2000 to 2001. As shown in Table 2, this increase was lead by increases in the number of U. S. minority group members enrolled in graduate programs. This growth in the enrollment of members of U. S. minority groups increased, lead by a 6% increase in Asian graduate students. American Indian students increased by 5%, followed by African Americans and Hispanics/Latinos at 4%. These percentage increases are consistent with the 1986-2000 annual average annual growth rates, which ranged from 4% to 7%.

With the enrollment turnaround, most of the graduate fields shown in Table 3 experienced enrollment growth in 2001. The highest growth was in the physical sciences (6%) and engineering (5%), reflecting the increase in international student enrollment. The two largest graduate fields, education and business, posted increases of 3% and 4%, respectively. The health sciences was the sole field with an enrollment decrease in the last year. Since the peak enrollment year of 1995, the greatest enrollment increases have been in the fields of business (12%) and education (11%), fields that share a close connection between graduate education and subsequent careers.

Discussion

The two leading factors influencing the changes underway in graduate enrollment appear to be the softening economy and the unabated interest from international students in graduate study in the United States. Since changes in graduate enrollment tends to follow changes in the unemployment rate, we would expect to see increases in applications and enrollments from new domestic bachelor's-degree

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Trends in graduate enrollment by ethnicity, 1986 to 2001

(U.S. citizens and permanent residents only)

	2000	Average Annual % Change 1986 to 2000	% Change 1999-2000	% Change 2000-2001 (Preliminary)
Total U.S. Enrollment	**967,199**	**1%**	**0%**	**1%**
African American	93,367	6%	6%	4%
American Indian	6,281	4%	3%	5%
Asian	55,590	6%	1%	6%
Hispanic/Latino	66,135	7%	7%	4%
White	746,826	0%	-1%	1%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.

Source: CGS/GRE Survey of Graduate Enrollment

Table 2

Items of Interest

The **Jack Kent Cooke Foundation** is currently accepting applications for its graduate scholarship program for the 2003-2004 academic year. The program is designed for college seniors who are residents of Virginia, Maryland, or the District of Columbia. Eligible students must plan to enroll full time in a graduate or professional degree program at an accredited institution during the fall of 2003. The award will provide funding for up to 50 students for tuition, room and board, required fees, and books for up to six years of graduate study. Award amounts will vary for each recipient based on the institution he or she attends and cannot exceed $50,000 annually. Scholars may use the award to attend any accredited graduate school in the U.S. or abroad to pursue any graduate or professional degree. The deadline to submit applications for is February 1, 2003, and recipients will be notified in the spring of 2003. Application materials are available online at www.jackkentcookefoundation.org or by calling 800-498-6478.

For those interested in information on new doctorate recipients, Lance Selfa at **NORC** reports that the results of the **2001 Survey of Earned Doctorates** are now available online. The National Science Foundation's Science and Engineering Doctorate Awards: 2001 can be viewed and downloaded at: www.nsf.gov/sbe/srs/nsf03300/start.htm. Also, preliminary appendix tables from the forthcoming Summary Report: Doctorate Recipients from United States Universities, 2001 can be viewed and downloaded at www.norc.uchicago.edu/issues/docdata.htm.

New Deans and Titles

John J. Contreni is the new Interim Dean of the Graduate School at Purdue University. Former dean Gary Isom, has returned to the faculty.

Anne M. Donnellan has been named Associate Provost for Graduate Education at the University of San Diego.

Larry F. Lemanski is the new Vice President for Research and Graduate Studies at Florida Atlantic University, replacing Nathan Dean.

Jennifer Martin has been named Dean of the Graduate School at Texas Woman's University. She replaces Michael Droge.

Robert May is the Interim Dean of Graduate Studies at the University of Texas at Austin. **Teresa A. Sullivan**, who previously held the position, is now the Executive Vice Chancellor for Academic Affairs for the University of Texas System.

Karen Newman is the new Dean of the Graduate School at Brown University. She replaces Peder J. Estrup.

Anne E. Mayhew's title at the University of Tennessee at Knoxville has changed to Vice Provost for Academic Affairs and Dean of Graduate Studies.

Robert Roer replaces Neil F. Hadley as Dean of the Graduate School at the University of North Carolina at Wilmington.

Data Sources

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recipients who choose graduate school over an uncertain job market. The 5% increase in graduate applications is evidence of this continuing demand.

Despite the post-9/11 slowdown in visa processing, international students continue to apply in great numbers to U.S. graduate schools. Because the major source countries are not in the Middle East but are on the Pacific Rim, most international students are likely to retain their high interest in graduate study in the United States.

If all goes according to INS plans, SEVIS, the new student and exchange visitor tracking system, will be implemented this winter. While the launching of this new system is a technical challenge for all involved, there is no way to predict the eventual effect it will have on graduate student flows. As we concluded last year, the most likely scenario is for demand for graduate education to remain high and enrollment to continue along a steady upward trajectory. ✧

Trends in graduate enrollment by field, 1986 to 2001

Major Field	2000	Average Annual % Change 1986 to 2000	% Change 1999-2000	% Change 2000-2001 (Preliminary)
Total	**1,264,692**	**1%**	**2%**	**3%**
Biological Sciences*	57,451	1%	2%	1%
Business	176,223	1%	0%	4%
Education	258,529	1%	3%	3%
Engineering	83,449	1%	3%	5%
Health Sciences	88,818	3%	1%	-2%
Humanities & Arts	87,831	1%	-3%	1%
Physical Sciences	89,138	0%	4%	6%
Public Administration & Services	39,773	2%	-1%	0%
Social Sciences	90,847	1%	-2%	1%
Other Fields**	89,100	1%	3%	3%

NOTE: Because not all institutions responded to all items, detail variables may not sum to total.
*"Biological Sciences" includes agriculture.
**The category "Other Fields" includes architecture, communications, home economics, library sciences, and religion.

Source: CGS/GRE Survey of Graduate Enrollment

Table 3

Federal Relations Update

continued from page 2

Gallup asked if President Bush and Republican leaders in the House and Senate were moving the country in the right direction, nearly 60% of those surveyed agreed.

Despite the strong showing by Republicans, few believe the election was a mandate for the Republican Party agenda. The commonly held view is that Democrats did a poor job of proving their case to the American voters, allowing the Bush administration and Republican leadership to focus public attention on national security rather than domestic issues. Some Washington observers see the American public more evenly split on issues facing this country than ever before. Others point out that in 1994, Republicans had a similar stronghold on public opinion immediately after the midterm elections, but within a year, lost a significant portion of their support.

While the post-election analysis will continue for months, the immediate concern is what will happen in the lame duck session. During the lame duck session, Democrats will continue to control the Senate as a result of Minnesota's interim Senator Dean Barkley's decision to remain independent and not caucus with either the Senate Republicans or the Democrats. Barkley's decision allows the Democrats to remain in the majority, with a 50-to-49 seat advantage until Senator-elect Jim Talent (R-MO) is certified by the State of Missouri. Once Talent's election is certified, Senator Jean Carnahan (D-MO) will step down and the majority in the Senate will be evenly split 50-to-50, with Vice President Cheney casting tiebreaking votes.

According to reports published in the *CongressDaily* and *CQMonitor*, Congress appears to be moving in the direction of passing another Continuing Resolution (CR) through January, when the new 108th Congress is sworn in. A CR allows the federal government to operate at the funding levels of the previous fiscal year until Congress approves new funding bills. Only two of the 13 major appropriation bills have passed the Congress. The lame duck 107th Congress can choose to act on these bills or hold off until January. For now, it looks like the 108th Congress will be making key decisions about a wide array of issues including issues important to the graduate education community. Last-minute efforts in the lame duck session to boost funding levels beyond last year's allocations in the CR are expected to die.

One important issue that appears to be headed for lame duck action is the creation of the new Department of Homeland Security. Senate leaders on both sides of the aisle have reached compromise agreements on key sticking points, which have held up final action in the Senate. The House adopted a measure creating the department on November 13. The House bill includes a number of provisions of interest, such as the:

•authorization of $500 million for the creation of a new Homeland Security Advanced Research Projects Agency (HSARPA) to administer a new "Acceleration Fund;" the fund would support new technologies, rather than limiting its support to existing technologies;

•creation of the position of an Under Secretary for Science and Technology; and

•transfer of several programs currently administered by other departments to the new department, including the Plum Island Animal Disease Center.

Another provision in the bill keeps the control for making priority-setting decisions related to civilian human health-related research and development activities relating to chemical, biological, radiological, nuclear and other emerging threats at the Department of Health and Human Services.

CGS is continuing to monitor Senate action on the bill and any compromise actions that will arise affecting graduate education and research.

With the leadership shift in the Senate, there will be important changes in the make-up of committee chairs. The chairmanship of the Senate Health, Education, Labor and Pensions Committee, currently chaired by Senator Edward Kennedy (D-MA), will now go to Senator Judd Gregg (R-NH). This committee oversees many of the largest domestic programs, including education. Senator Gregg is considered more conservative than most of his Senate colleagues in New England, but is also viewed as a pragmatist and less ideological than some of his Republican peers. He has a reputation for working with Democrats, including Senator Kennedy, on key issues like education, pensions and the environment.

The chairmanship of the Senate Appropriations Committee will move back to Senator Ted Stevens (R-AK). Senator Stevens chaired the Appropriations Committee prior to the Democratic takeover in June of 2001, when Senator Byrd (D-WV) became chair. Senator Stevens is well known for his knowledge and understanding of the appropriations process. The chairmanship of the Budget Committee is expected to go to Senator Don Nickles (R-OK), who is considered a conservative and has a reputation for his strong distaste for taxes, spending and government expansion. He is expected to be a forceful chair and will be less willing to negotiate with Democrats on fiscal issues.

The reauthorization of the Higher Education Act will be one major issue that will be debated after the new Congress and new committee chairs are in place. CGS and the higher education community are working to provide initial recommendations to committee staff. The House Republicans have fast-tracked the issue and have asked for comment by January 1. It is unclear if the Senate will follow suit or pursue a slower pace on reauthorization. In any case, we can expect the debate to heat up in the spring and summer months.

CGS Federal Relations will continue to provide updates on the progress of the higher education reauthorization efforts and other important policy issues affecting CGS members. ✧

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highlights
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Upcoming CGS Meetings

CGS New Deans Institute and Summer Workshop

2003
July 12-16
Hyatt Regency
Savannah, Georgia

2004
July 10-14
Caribe Hilton
San Juan, Puerto Rico

Annual Meeting

2003
December 3-6
Westin St. Francis
San Francisco, California

2004
December 8-11
Marriott Wardman Park
Washington, DC

For details see www.cgsnet.org early in 2003!

STAFF NEWS

On Sunday, October 13, 2002, the CGS staff was delighted to welcome Colleen Nelida Drake to the world! Colleen is the new daughter of Marta Perez Drake, Director of Policy, Programs and Communication. Mother and daughter are doing well and Marta expects to be back in the office in February.

Lisa Jordan has joined the staff as Program Assistant for the Preparing Future Faculty Program and other projects. Lisa has degrees from the University of North Carolina, Chapel Hill, and Georgetown University. Before coming to CGS, she designed computer-based training programs at TRW.

Ericka Sykes has begun a temporary assignment with CGS, filling in for Janice Goggins as interim Membership Coordinator while Janice is on maternity leave, along with other assignments. Her recent work experience has included an assignment at the National Education Association and positions with the U. S. Postal Service, Department of Defense and Department of Interior. ◆

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CGS seeks applications for the...

CGS/NSF 2003 Dean-in-Residence Program

CGS seeks applications for the 2003 CGS/NF Dean in Residence. This program is a distinct opportunity for an outstanding graduate dean to bring to the NSF insights, perspectives, and the practical experience of a senior administrator at a research univeresity.

In addition, the CGS/NSF Dean in Residence will share with the graduate dean community, as well as broader science and engineering faculty, NSF's perspective on graduate education. Interactions with program officers in NSF's Division of Graduate Education wil be central to this postion, and the CGS/NSF Dean in Residence will be expected to contribute significantly to the planning of future NSF program activities.

The Dean in Residence also will be an active participant in CGS programs and activities. S/He will develop programs to discuss NSF graduate support at CGS events such as the New Deans Institute and the annual and regional meetings of deans. This position is a one-year appointment starting on July 1, 2003.

To learn more about this exciting and collaborative Dean-in Residence opportunity (including program description, eligibility requirements, selection criteria and application procedure), please go to the CGS website at www.cgsnet.org/ProgramsServices/dean-in-residence.htm.

The application deadline is
February 10, 2003.

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EFF-089 (1/2003)